

Final Report Amendment

Study Number: 2190.03

Study Name: **Two Year Chronic Toxicology Study of Bisphenol A (BPA) [CAS# 80-05-7] Administered by Gavage to Sprague-Dawley Rats (NCTR) from Gestational Day 6 until Birth and Directly to F1 Pups from Postnatal Day 1 (PND 1); Continuous and Stop Dose (PND 21) Exposures**

Date of Final Report: July 31, 2017

Amendment (Attach additional sheets as necessary):

The Final Pathology Report was amended on October 5, 2017.

The cover page was reprinted with the original date and stamped "Amended".

Pages 5, 6 and 7 were revised.

The QAS was revised to reflect audit of the amended final report.

Reason for Amendment:

It was observed in the final report tables 13 & 14 when an animal had both an adenoma and adenocarcinoma or adenocarcinoma and adenosquamous carcinoma it was counted twice. The study pathologist and PI determined an animal should be counted once when this occurs when calculating incidence. This occurred in a total of three animals: Animal 7122 (F1 2500.BPA F) and 8001 (F1 250.0StDose F) have an adenocarcinoma and adenoma and Animal 1931 (F1 2500.StDose F) has an adenocarcinoma and adenosquamous carcinoma. The final pathology report was amended to count each animal only once in Table 13 and 14. Page 5 was revised to make formatting change to Table 9 to be consistent with changes to Table 13 and 14.

Approvals:

Date

Study Pathologist

Date

Quality Assurance

AMENDED

**Two Year Chronic Toxicology Study of Bisphenol A (BPA) [CAS# 80-05-7] Administered
by Gavage to Sprague-Dawley Rats (NCTR) from Gestational Day 6 until Birth and
Directly to F1 Pups from Postnatal Day 1 (PND 1); Continuous and Stop Dose (PND 21)
Exposures**

NCTR PROTOCOL NUMBER E02190.01

Study Number E02190.03

PATHOLOGY REPORT

**PREPARED
BY**

**TOXICOLOGIC PATHOLOGY ASSOCIATES
JEFFERSON, ARKANSAS**

FOR

**NATIONAL CENTER FOR TOXICOLOGICAL RESEARCH
3900 N.C.T.R. ROAD
JEFFERSON, ARKANSAS 72079**

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Two Year Chronic Toxicology Study of Bisphenol A (BPA) [CAS# 80-05-7] Administered by Gavage to Sprague-Dawley Rats (NCTR) from Gestational Day 6 until Birth and Directly to F1 Pups from Postnatal Day 1 (PND 1); Continuous and Stop Dose (PND 21) Exposures

**NCTR Protocol Number E02190.01
Study Number E02190.03**

INTRODUCTION

This report by Toxicologic Pathology Associates for the National Center for Toxicological Research, Jefferson, Arkansas 72079, represents the results of pathology support for Study Number E02190.03. This study was conducted in order to characterize the long term toxicity of orally administered BPA, including developmental exposure, in the NCTR Sprague-Dawley rat over a broad dose range. In addition, animals generated in the study were assigned to separate protocols for assessment of a range of molecular, morphological and functional endpoints to determine if these endpoints are predictive of long term toxic effects or reveal potential effects undetected by standard toxicological evaluations. This study was conducted under exposure conditions identical to those used in the subchronic rat BPA study conducted at the NCTR (NCTR E02176.01). Pups were directly dosed through the lactation period rather than relying on exposure through the dam's milk and environmental conditions that could potentially impact the results (e.g. background phytoestrogens, mycoestrogens and BPA) were monitored.

EXPERIMENT DESIGN AND METHODS

The number of animals used and their allocation to their respective dose groups are shown in the following tables:

Table 1 – Study Design (1 year)

Treatment Number M / F	Treatment	Dose Level (µg/kg)	Dose Concentration (µg/ml)	# Animals at Interim Sac		Administration Frequency
				Male	Female	
8 / 9	Vehicle Control	0	0	22 ^a	23 ^a	Daily
24 / 25	Vehicle Control	0	0	20 ^b	20 ^a	Daily to PND 21
10 / 11	BPA	2.5	0.5	22	22	Daily
26 / 27	BPA	2.5	0.5	20	22	Daily to PND 21
12 / 13	BPA	25	5	20	22	Daily
28 / 29	BPA	25	5	20	20	Daily to PND 21
14 / 15	BPA	250	50	24	24	Daily
30 / 31	BPA	250	50	19 ^c	22	Daily to PND 21
16 / 17	BPA	2500	500	20	20	Daily
32 / 33	BPA	2500	500	20	20	Daily to PND 21
18 / 19	BPA	25000	5000	22	24	Daily
34 / 35	BPA	25000	5000	22	22	Daily to PND 21
20 / 21	EE2	0.05	0.01	26	26	Daily
22 / 23	EE2	0.5	0.1	26	26	Daily

^a Excludes animals reallocated to E02191.01.

^b Excludes animals reallocated to E02191.01 and one animal identified as wrong sex/discarded.

^c Excludes one animal found dead/cannibalized.

Table 2 – Study Design (2 year)

Treatment Number M / F	Treatment	Dose Level (µg/kg)	Dose Concentration (µg/ml)	# Animals at Final Sac		Administration Frequency
				Male	Female	
8 / 9	Vehicle Control	0	0	50	50	Daily
24 / 25	Vehicle Control	0	0	50	50	Daily to PND 21
10 / 11	BPA	2.5	0.5	48	48	Daily
26 / 27	BPA	2.5	0.5	48	50	Daily to PND 21
12 / 13	BPA	25	5	48	46	Daily
28 / 29	BPA	25	5	48	48	Daily to PND 21
14 / 15	BPA	250	50	50	49 ^a	Daily
30 / 31	BPA	250	50	50	50	Daily to PND 21
16 / 17	BPA	2500	500	50	50	Daily
32 / 33	BPA	2500	500	50	50	Daily to PND 21
18 / 19	BPA	25000	5000	46	46	Daily
34 / 35	BPA	25000	5000	46	46	Daily to PND 21
20 / 21	EE2	0.05	0.01	26	26	Daily
22 / 23	EE2	0.5	0.1	26	26	Daily

^a Excludes one animal reported as missing.

At termination, surviving animals were euthanized by exposure to carbon dioxide and a complete necropsy was performed. At sacrifice, all protocol-designated tissues were examined grossly, removed and preserved in 10% neutral buffered formalin except testes and eyes which were fixed in modified Davidson's fixative. The following organs were weighed: adrenals, brain, epididymides, heart, kidneys, liver, pituitary*, seminal vesicles w/coagulating gland, spleen, testes, thymus, thyroid*, epididymal and retroperitoneal fat pads, ovaries, uterus and ovarian/parametrical fat pad (*weighed post fixation). The protocol-designated tissues including all gross lesions were trimmed, processed and embedded in infiltrating media (Formula R®), sectioned at approximately 5 microns, stained with hematoxylin and eosin (except testes) and examined by light microscopy. The testes were stained with PAS per protocol. The dorsolateral and ventral prostates were step sectioned at intervals of 100 µm, stained with hematoxylin & eosin and evaluated by light microscopy. Evaluation of female reproductive tissues were conducted using the diagnostic criteria as outlined in Dixon *et.al.*, *J. Toxicol. Pathol.*, Vol. 27 (3 & 4 Supplement), 1S-107S, 2014. Microscopic findings were recorded in the National Toxicology Program's automated Toxicology Data Management System Enterprise, TDMSE. When applicable, non-neoplastic lesions were graded for severity as 1 (minimal), 2 (mild), 3 (moderate), or 4 (marked).

Mammary Gland Evaluation

The left 5th (inguinal) mammary gland and fat pad were removed as a unit to include the inguinal lymph node. It was placed in a cassette in a "flattened" dorsoventral orientation similar to the orientation before it was removed from the carcass. This orientation provided a histological section with a similar profile to that of a routine mammary whole mount. Histopathology mammary gland assessment involved the subjective grading for severity of the relative density (number) of branching ducts and the density of lobules of alveoli in a lobuloalveolar growth pattern per unit area of mammary fat pad present in the tissue section.

Seizure Animals

Approximately 9% of the animals displayed spontaneous seizures at least once during the study period. Some animals showed seizures only once but others on several or numerous occasions. Most of the seizures were observed when handling for gavaging or cage changes. No related histopathological abnormalities in the brain, spinal cord or peripheral nerves were evident in these animals.

RESULTS AND DISCUSSION

Mortality

The disposition of animals in the 1 year study are summarized in Tables 3 and 4 while those in the 2 year study are presented in Tables 5 and 6. There does not appear to be any BPA treatment relationship to the cause of death incidence at either time point except for a possible slight increase in female moribund animals in the high continuous dose group at year 2. A summary of the causes of death for found dead animals and those removed early (moribund) from the study are listed in Appendix VI by time points: 1 year and 2 year.

Table 3 – Disposition Summary – Continuous Dose (1 year)

Disposition	Sex	Vehicle Control	EE2 (µg/kg)		BPA (µg/kg)				
			0.05	0.5	2.5	25	250	2500	25000
Rats Examined	Male	22	26	26	22	20	24	20	22
	Female	23	26	26	22	22	24	20	24
Natural Death	Male	0	2	3	0	1	0	2	1
	Female	1	1	0	0	1	0	0	0
Moribund Sacrifice	Male	4	2	0	0	1	0	0	0
	Female	1	1	0	0	0	2	0	0
Interim Sacrifice	Male	18	22	23	22	18	24	18	21
	Female	21	24	26	22	21	22	20	24

Table 4 – Disposition Summary – Stop Dose (1 year)

Disposition	Sex	Vehicle Control	BPA (µg/kg)				
			2.5	25	250	2500	25000
Rats Examined	Male	20	20	20	19	20	22
	Female	20	22	20	22	20	22
Natural Death	Male	0	0	1	0	0	0
	Female	0	0	0	0	0	0
Moribund Sacrifice	Male	0	0	0	0	0	0
	Female	0	0	0	0	0	2
Interim Sacrifice	Male	20	20	19	19	20	22
	Female	20	22	20	22	20	20

Table 5 – Disposition Summary – Continuous Dose (2 year)

Disposition	Sex	Vehicle Control	EE2 (µg/kg)		BPA (µg/kg)				
			0.05	0.5	2.5	25	250	2500	25000
Rats Examined	Male	50	26	26	48	48	50	50	46
	Female	50	26	26	48	46	49	50	46
Natural Death	Male	11	3	4	16	4	15	10	8
	Female	6	1	4	1	1	5	7	3
Moribund Sacrifice	Male	24	14	10	16	27	21	24	27
	Female	28	18	18	28	31	31	33	35
Terminal Sacrifice	Male	15	9	12	16	17	14	16	11
	Female	16	7	4	19	14	13	10	8

Table 6 – Disposition Summary – Stop Dose – (PND21) (2 year)

Disposition	Sex	Vehicle Control	BPA (µg/kg)				
			2.5	25	250	2500	25000
Rats Examined	Male	50	48	48	50	50	46
	Female	50	50	48	50	50	46
Natural Death	Male	13	12	8	8	8	8
	Female	3	6	3	2	3	2
Moribund Sacrifice	Male	20	20	24	29	27	29
	Female	36	32	32	35	30	31
Terminal Sacrifice	Male	17	16	16	13	15	9
	Female	11	12	13	13	17	13

Gross Observations

All gross observations were recorded in the automated Gross Pathology System. A microscopic finding was recorded for each corresponding observation when possible. A direct BPA treatment relationship to the thousands of gross observations was not apparent at either time point at necropsy.

Histopathology

Microscopic findings are summarized by treatment group and anatomic site in Pathology Report 2 (Neoplastic), Pathology Report 5 (Neoplastic with Systemic lesions Abridged) and Pathology Report 3 (Non-neoplastic). They are also tabulated by individual animal in Pathology Report 4 (Neoplastic) and 9 (Non-neoplastic). These compilations are in Appendices I-V, respectively, of this report. All reports are presented by time points: 1 year and 2 year.

Statements made in this histopathology report concerning incidences in treatment groups are not based on statistical analysis.

Neoplastic Findings

One year Male

Neoplasms not considered to be treatment related were present in both continuous dose as well as stop dose groups at very low incidence levels and randomly distributed amongst the groups. They were present in the liver, heart, intestinal tract (jejunum), pituitary, skin, parathyroid and skeletal muscle. Malignant lymphomas and granulocytic leukemias were also present and were randomly distributed amongst the groups.

One year Female

Stromal polyp (uterus) incidence was increased in the higher continuous dose groups as well as the low and mid stop dose groups (Tables 7 and 8). Neoplasms were also noted in the pituitary, pancreas (islets), parathyroid, thyroid, skin, brain, uterus, Zymbal's gland and tissue NOS but were at a very low incidence. Mammary gland neoplasm incidence was variably increased in continuous dose groups but this increase was not evident in stop dose groups relative to stop dose controls (Tables 9 and 10). Individual animal mammary gland fibroadenoma / adenoma / adenocarcinoma counts are listed in Appendix VII.

Table 7 – Incidence (%) of Stromal Polyps Continuous Dose

Tissue	Morphology	Vehicle Control	EE2 (µg/kg)		BPA (µg/kg)				
			0.05	0.5	2.5	25	250	2500	25000
Uterus	Stromal Polyps	4	4	0	0	5	0	15	13

Table 8 – Incidence (%) of Stromal Polyps Stop Dose

Tissue	Morphology	Vehicle Control	BPA (µg/kg)				
			2.5	25	250	2500	25000
Uterus	Stromal Polyps	0	5	0	5	0	0

Table 9 – Incidence (%) of Mammary Gland Neoplasms Continuous Dose

Tissue	Morphology	Vehicle Control	EE2 (µg/kg)		BPA (µg/kg)				
			0.05	0.5	2.5	25	250	2500	25000
Mammary Gland	PageFibroadenoma	9	8	15	14	14	4	10	25
	Adenocarcinoma	0	8 ^a	0	5	5	0	0	0
	Fibroadenoma or Adenocarcinoma	9	15 ^a	15	18	18	4	10	25

^a Includes adenosquamous carcinoma

This page revised.

Table 10 – Incidence (%) of Mammary Gland Neoplasms Stop Dose

Tissue	Morphology	Vehicle Control	BPA (µg/kg)				
			2.5	25	250	2500	25000
Mammary Gland	Fibroadenoma	20	5	5	5	5	9
	Adenocarcinoma	0	0	0	0	0	
	Fibroadenoma or Adenocarcinoma	20	5	5	5	5	9

Two year Male

Neoplasms commonly found in aged Sprague-Dawley rats were noted in all groups, including variable incidences of prostate (ventral) adenomas in the continuous dose and stop dose groups (Tables 11 and 12). Two neoplasms, an adenoma in a 25000 µg/kg BPA continuous dose animal and an adenocarcinoma in a 25.0 µg/kg BPA stop dose animal, were noted in the dorsal/lateral prostate lobes.

Table 11 – Incidence (%) of Prostate (Ventral) Neoplasms Continuous Dose

Tissue	Morphology	Vehicle Control	EE2 (µg/kg)		BPA (µg/kg)				
			0.05	0.5	2.5	25	250	2500	25000
Prostate	Adenoma	12	8	8	15	4	8	4	13

Table 12 – Incidence (%) of Prostate (Ventral) Neoplasms Stop Dose

Tissue	Morphology	Vehicle Control	BPA (µg/kg)				
			2.5	25	250	2500	25000
Prostate	Adenoma	8	9	9	4	8	13

Two year Female

Common background neoplasms were noted in all groups. The increased incidence of stromal polyps (uterus) in the 1 year study was not evident nor was the marginal increase of fibroadenomas (mammary). A variable increased incidence of mammary gland adenocarcinomas was present in both the continuous and stop dose groups (Tables 13 and 14).

Table 13 - Incidence (%) of Mammary Gland Neoplasms Continuous Dose

Tissue	Morphology	Vehicle Control	EE2 (µg/kg)		BPA (µg/kg)				
			0.05	0.5	2.5	25	250	2500	25000
Mammary Gland	Adenoma	4	0	0	2	4	2	4	2
	Adenocarcinoma	8	8	38	13	13	10	18	7 ^a
	Adenoma and/or Adenocarcinoma	12	8	38	15	17	12	20 ^b	9 ^a

^a Includes adenosquamous carcinoma

^b Includes one animal with an adenoma and adenocarcinoma

This page revised.

Table 14 – Incidence (%) of Mammary Gland Neoplasms Stop Dose

Tissue	Morphology	Vehicle Control	BPA (µg/kg)				
			2.5	25	250	2500	25000
Mammary Gland	Adenoma	2	2	0	6	0	2
	Adenocarcinoma	6	22	10	14	18 ^a	11
	Adenoma and/or Adenocarcinoma	8	24	10	18 ^b	18 ^a	13

^a Includes one animal with an adenocarcinoma and adenosquamous carcinoma

^b Includes one animal with an adenoma and adenocarcinoma

Non-neoplastic Findings

One year Male

Common spontaneous background changes in aging males such as cardiomyopathy and chronic progressive nephropathy were evident in all groups including controls. The severity and incidence of these changes and other background lesions suggest they were not treatment related since they were similar to concurrent control values and no dose response was evident. Variable increased incidences of seminiferous tubular degeneration were observed in various continuous and stop dose groups (Tables 15 and 16). Lesions associated with gavage injury were noted in several animals and involved inflammatory changes in the esophagus and lungs (also in females).

Table 15 – Incidence (%) of Seminiferous Tubular Degeneration Continuous Dose

Tissue	Morphology	Vehicle Control	EE2 (µg/kg)		BPA (µg/kg)				
			0.05	0.5	2.5	25	250	2500	25000
Testes	Degeneration	27 (2.2)	46 (1.8)	24 (1.0)	32 (2.7)	45 (1.4)	42 (1.6)	25 (1.0)	41 (2.1)

() Average Severity

Table 16 – Incidence (%) of Seminiferous Tubular Degeneration Stop Dose

Tissue	Morphology	Vehicle Control	BPA (µg/kg)				
			2.5	25	250	2500	25000
Testes	Degeneration	30 (1.5)	35 (2.7)	45 (1.8)	21 (1.8)	45 (2.0)	27 (1.7)

() Average Severity

One year Female

Similar non-neoplastic background changes but to a lesser extent than in males were also present in females and due to their severity and incidence were not considered to be treatment related. However, in the continuous dose groups, an increased incidence of mammary gland lobular hyperplasia was observed (Tables 17 and 18) but in comparing this incidence to the stop dose control group this increase does not appear to be meaningful.

This page revised.

Table 17 – Incidence (%) of Mammary Gland Lobular Hyperplasia Continuous Dose

Tissue	Morphology	Vehicle Control	EE2 ($\mu\text{g}/\text{kg}$)		BPA ($\mu\text{g}/\text{kg}$)				
			0.05	0.5	2.5	25	250	2500	25000
Mammary Gland	Hyperplasia Lobular	43 (1.5)	50 (1.6)	88 (1.6)	64 (1.5)	59 (1.5)	63 (1.3)	65 (1.4)	50 (1.5)

() Average Severity

Table 18 – Incidence (%) of Mammary Gland Lobular Hyperplasia Stop Dose

Tissue	Morphology	Vehicle Control	BPA ($\mu\text{g}/\text{kg}$)				
			2.5	25	250	2500	25000
Mammary Gland	Hyperplasia Lobular	75 (1.4)	55 (1.4)	40 (1.6)	55 (1.4)	35 (1.4)	55 (1.7)

() Average Severity

Assessment of the reproductive system in these aging females was challenging due to senescence which usually starts at 5-6 months resulting in irregular estrous cycles with some asynchrony and making treatment effects hard to discern. Repetitive pseudopregnancy was the most common finding in all groups but without any treatment relationship as regards to incidence. Repetitive pseudopregnancy was characterized by large eosinophilic corpus lutea, a vagina featuring a low stratum germinativum with mucification and a folded endometrial epithelium.

A variable increased incidence of ovarian atrophy was present in the BPA continuous dose groups as well as stop dose groups. In addition, there was an increased incidence of squamous metaplasia (uterus) in some groups (Tables 19 and 20).

Table 19 – Incidence (%) of Ovarian Atrophy and Squamous Metaplasia (Uterus) Continuous Dose

Tissue	Morphology	Vehicle Control	EE2 ($\mu\text{g}/\text{kg}$)		BPA ($\mu\text{g}/\text{kg}$)				
			0.05	0.5	2.5	25	250	2500	25000
Ovary	Atrophy	43 (2.9)	36 (3.3)	100 (4.0)	32 (3.1)	41 (3.6)	58 (2.1)	55 (3.3)	46 (3.6)
Uterus	Squamous Metaplasia	4 (2.0)	8 (2.0)	54 (1.6)	5 (2.0)	19 (1.3)	13 (1.0)	15 (1.7)	21 (1.0)

() Average Severity

Table 20 – Incidence (%) of Ovarian Atrophy and Squamous Metaplasia (Uterus) Stop Dose

Tissue	Morphology	Vehicle Control	BPA (µg/kg)				
			2.5	25	250	2500	25000
Ovary	Atrophy	50 (2.2)	41 (2.8)	55 (1.6)	27 (2.5)	60 (2.1)	68 (2.5)
Uterus	Squamous Metaplasia	0 (0.0)	9 (1.0)	5 (2.0)	5 (1.0)	0 (0.0)	18 (1.8)

() Average Severity

Two year Male

Non-neoplastic changes observed across the dose groups were considered to be within the normal incidence range for aging Sprague-Dawley males. The increased incidence of seminiferous tubular degeneration noted at 1 year was not markedly different amongst the groups at 2 years.

Two year Female

The only non-neoplastic change in females other than aging changes that might be meaningful was the increased incidence of squamous metaplasia (uterus) noted in some continuous dose groups (Tables 21 and 22).

Table 21 – Incidence (%) of Squamous Metaplasia (Uterus) Continuous Dose

Tissue	Morphology	Vehicle Control	EE2 (µg/kg)		BPA (µg/kg)				
			0.05	0.5	2.5	25	250	2500	25000
Uterus	Squamous Metaplasia	4 (1.5)	8 (2.0)	15 (1.5)	8 (1.5)	9 (2.3)	2 (1.0)	8 (1.8)	13 (1.5)

() Average Severity

Table 22 – Incidence (%) of Squamous Metaplasia (Uterus) Stop

Tissue	Morphology	Vehicle Control	BPA (µg/kg)				
			2.5	25	250	2500	25000
Uterus	Squamous Metaplasia	10 (1.4)	2 (1.0)	4 (1.5)	4 (2.0)	8 (1.3)	7 (1.0)

() Average Severity

SUMMARYMale

At the one year time point, there were no treatment-related neoplastic changes considered meaningful and the only potential non-neoplastic change (i.e., seminiferous tubular degeneration) was not observed at 2 years, nor were any other non-neoplastic changes. Prostate (ventral) adenomas in both continuous and stop dose groups with slightly higher incidences in some treatment groups were the only noteworthy observation at the 2 year time point.

Female

At the 1 year time point both the incidence of fibroadenomas and uterine stromal polyps were variably increased in continuous dose groups, while at 2 years, mammary gland adenocarcinomas were variably increased in both the continuous and stop dose groups. An increased incidence of squamous metaplasia (uterus) was noted in both the continuous and stop dose groups at 1 year but only in continuous dose groups at 2 years.

Greg R. Olson, DVM, Ph.D.

Date



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 Administered by Gavage to Sprague-Dawley Rats (NCTR) from Gestational Day 6 until
 Birth and Directly to F1 Pups from Postnatal Day (PND 1); Continuous and Stop Dose
 (PND 21) Exposures

NCTR Protocol Number E02190.01
 NCTR Study Number E02190.03 (1 and 2 year)

QUALITY ASSURANCE STATEMENT

The portions of this study conducted by Toxicologic Pathology Associates (TPA) have been inspected and audited by the TPA Quality Assurance Unit (QAU) as required by the Good Laboratory Practice (GLP) regulations promulgated by the U.S. Food and Drug Administration Federal Register (21 CFR Part 58). The following table is a record of the inspections/audits performed and reported by the QAU.

DATE OF INSPECTION	PHASE INSPECTED	DATE FINDINGS REPORTED TO MANAGEMENT AND STUDY PATHOLOGIST
Sept 25, 2013	Critical Phase Inspection Nec (1 yr)	Sept 25, 2013
Dec 18, 2013	Critical Phase Inspection Nec (1 yr)	Dec 20, 2013
Jul 10, 2013	Vaginal Cytology Fixation (1 yr)	Jul 11, 2013
Apr 23 - Jun 6, 2014	Clinical Pathology Data (1 yr)	Jun 9, 2014
Jun 6, 2014	Sperm Analysis Data (1 yr)	Jun 6, 2014
Jun 10 - 16, 2014	Vaginal Cytology Data (1 yr)	Jun 16, 2014
Sept 23, 2014	Critical Phase Inspection Nec (2 yr)	Sept 24, 2014
Oct 14-20, 2014	IANRs and P14s (1 yr)	Oct 28, 2014
Oct 22-28, 2014	Draft Pathology Report (1 yr)	Oct 28, 2014
Jan 5-23, 2015	Vaginal Cytology Data (2 yr)	Jan 27, 2015
Jan 4 – Feb 15, 2016	IANRs and P14s (2 yr)	Mar 15, 2016
Mar 1-15, 2016	Draft Pathology Report (1 & 2 yr combined)	Mar 15, 2016
Apr 26-28, 2016	Draft Pathology Report (1 & 2 yr combined)	(post NCTR QAU) Apr 28, 2016
Jun 9-Jul 14, 2017	Final Pathology Report (1 & 2 yr combined)	Jul 14, 2017
Jul 31, 2017	Final Pathology Report (1 & 2 yr combined)	(post NCTR QAU) Jul 31, 2017
Oct 5, 2017	Amended Final Pathology Report	(1 & 2 yr combined) Oct 5, 2017

Quality Assurance Manager
 Toxicologic Pathology Associates

Date

3900 NCTR Road, Jefferson, AR 72079 • 870.543.7600 • FAX: 870.543.7401

Appendix I Incidence Rates of Neoplasms by Anatomic Site (Pathology Report 2)

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

NTP Study Number: C10034
Lock Date: 08/16/2017
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: 09/29/2017

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
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Disposition Summary

Animals Initially In Study	22	22	20	24	20	22
Early Deaths						
Interval Sacrifice	18	22	18	24	18	21
Moribund Sacrifice	4		1			
Natural Death			1		2	1
Survivors						
Animals Examined Microscopically	22	22	20	24	20	22

ALIMENTARY SYSTEM

Esophagus	(4)	(1)	(2)	(0)	(2)	(1)
Lymphoma Malignant	1 (25%)					
Intestine Large, Colon	(4)	(0)	(2)	(0)	(0)	(0)
Intestine Small, Ileum	(4)	(0)	(2)	(0)	(0)	(0)
Intestine Small, Jejunum	(0)	(0)	(0)	(0)	(0)	(1)
Adenocarcinoma						1 (100%)
Adenoma						
Liver	(22)	(22)	(20)	(24)	(19)	(22)
Hepatocellular Adenoma						
Leukemia Granulocytic						
Lymphoma Malignant	2 (9%)					
Mesentery	(1)	(0)	(1)	(1)	(0)	(0)
Pancreas	(22)	(22)	(20)	(24)	(19)	(22)
Leukemia Granulocytic						
Lymphoma Malignant	2 (9%)					
Stomach, Forestomach	(5)	(0)	(3)	(0)	(1)	(1)
Lymphoma Malignant	2 (40%)					
Stomach, Glandular	(4)	(0)	(2)	(0)	(0)	(1)
Lymphoma Malignant	1 (25%)					

CARDIOVASCULAR SYSTEM

Blood Vessel	(22)	(22)	(20)	(24)	(20)	(22)
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a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
Heart	(22)	(22)	(20)	(24)	(20)	(22)
Leukemia Granulocytic						
Lymphoma Malignant	2 (9%)					
Schwannoma Malignant						
ENDOCRINE SYSTEM						
Adrenal Cortex	(22)	(22)	(20)	(24)	(20)	(22)
Lymphoma Malignant	2 (9%)					
Adrenal Medulla	(22)	(22)	(20)	(24)	(20)	(22)
Lymphoma Malignant	1 (5%)					
Islets, Pancreatic	(22)	(22)	(20)	(24)	(19)	(22)
Parathyroid Gland	(22)	(21)	(19)	(24)	(19)	(21)
Adenoma		1 (5%)				
Lymphoma Malignant	2 (9%)					
Pituitary Gland	(22)	(22)	(20)	(24)	(20)	(22)
Lymphoma Malignant	2 (9%)					
Pars Distalis, Adenoma					1 (5%)	1 (5%)
Thyroid Gland	(22)	(22)	(20)	(24)	(18)	(21)
Lymphoma Malignant	1 (5%)					
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Coagulating Gland	(22)	(22)	(20)	(24)	(18)	(21)
Ductus Deferens	(0)	(0)	(0)	(0)	(0)	(0)
Epididymis	(22)	(22)	(20)	(24)	(20)	(22)
Fat Pad, Epididymal	(0)	(1)	(0)	(1)	(1)	(0)
Preputial Gland	(2)	(3)	(3)	(1)	(1)	(1)
Prostate, Dorsal/lateral Lobe	(22)	(22)	(20)	(24)	(20)	(22)
Lymphoma Malignant	2 (9%)					

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
Prostate, Ventral Lobe	(22)	(22)	(20)	(24)	(20)	(22)
Lymphoma Malignant	1 (5%)					
Seminal Vesicle	(22)	(22)	(20)	(24)	(18)	(21)
Testes	(22)	(22)	(20)	(24)	(20)	(22)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(22)	(22)	(20)	(24)	(18)	(22)
Leukemia Granulocytic						
Lymphoma Malignant	2 (9%)					
Lymph Node	(2)	(1)	(0)	(0)	(1)	(0)
Axillary, Lymphoma Malignant	2 (100%)					
Cervical, Lymphoma Malignant	1 (50%)					
Inguinal, Lymphoma Malignant	2 (100%)					
Lumbar, Lymphoma Malignant	2 (100%)					
Mediastinal, Lymphoma Malignant	1 (50%)					
Pancreatic, Lymphoma Malignant	2 (100%)					
Renal, Lymphoma Malignant	2 (100%)					
Lymph Node, Mandibular	(2)	(1)	(0)	(0)	(2)	(0)
Lymphoma Malignant	2 (100%)					
Lymph Node, Mesenteric	(2)	(0)	(0)	(0)	(0)	(0)
Lymphoma Malignant	2 (100%)					
Spleen	(22)	(22)	(20)	(24)	(18)	(22)
Leukemia Granulocytic						
Lymphoma Malignant	2 (9%)					
Thymus	(22)	(22)	(20)	(24)	(19)	(21)
Lymphoma Malignant	1 (5%)					
INTEGUMENTARY SYSTEM						
Mammary Gland	(22)	(21)	(20)	(24)	(19)	(22)
Lymphoma Malignant	2 (9%)					
Skin	(1)	(2)	(0)	(1)	(1)	(0)
Schwannoma Benign						
Squamous Cell Papilloma	1 (100%)					

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
Subcutaneous Tissue, Fibrosarcoma						
Subcutaneous Tissue, Lipoma						
MUSCULOSKELETAL SYSTEM						
Bone	(0)	(0)	(0)	(1)	(0)	(0)
Bone, Femur	(22)	(22)	(20)	(24)	(20)	(22)
Skeletal Muscle	(1)	(0)	(1)	(0)	(0)	(0)
Sarcoma	1 (100%)					
NERVOUS SYSTEM						
Brain, Brain Stem	(22)	(22)	(20)	(24)	(20)	(22)
Brain, Cerebellum	(22)	(22)	(20)	(24)	(20)	(22)
Brain, Cerebrum	(22)	(22)	(20)	(24)	(20)	(22)
Lymphoma Malignant	1 (5%)					
Nerve Trigeminal	(2)	(2)	(0)	(1)	(1)	(1)
Peripheral Nerve, Sciatic	(2)	(2)	(0)	(1)	(1)	(1)
Peripheral Nerve, Tibial	(2)	(2)	(0)	(1)	(1)	(1)
Spinal Cord, Cervical	(2)	(2)	(0)	(1)	(1)	(1)
Spinal Cord, Lumbar	(2)	(2)	(0)	(1)	(1)	(1)
Spinal Cord, Thoracic	(2)	(2)	(0)	(1)	(1)	(1)
RESPIRATORY SYSTEM						
Lung	(5)	(0)	(3)	(2)	(2)	(1)
Lymphoma Malignant	2 (40%)					
Sarcoma, Metastatic, Skeletal Muscle	1 (20%)					
Nose	(4)	(0)	(2)	(0)	(0)	(0)
Lymphoma Malignant	2 (50%)					
Trachea	(4)	(0)	(2)	(0)	(0)	(0)
Lymphoma Malignant	1 (25%)					

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
Kidney	(22)	(22)	(20)	(24)	(19)	(22)
Leukemia Granulocytic						
Lymphoma Malignant	2 (9%)					
Urinary Bladder	(1)	(0)	(0)	(0)	(0)	(0)
SYSTEMIC LESIONS						
Multiple Organ	*(22)	*(22)	*(20)	*(24)	*(20)	*(22)
Leukemia Granulocytic						
Lymphoma Malignant	2 (9%)					

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
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Disposition Summary

Animals Initially In Study	26	26	20	20	20	19
Early Deaths						
Interval Sacrifice	22	23	20	20	19	19
Moribund Sacrifice	2					
Natural Death	2	3			1	
Survivors						
Animals Examined Microscopically	26	26	20	20	20	19

ALIMENTARY SYSTEM

Esophagus	(4)	(3)	(0)	(0)	(1)	(0)
Lymphoma Malignant						
Intestine Large, Colon	(3)	(0)	(0)	(0)	(0)	(0)
Intestine Small, Ileum	(3)	(0)	(0)	(0)	(0)	(0)
Intestine Small, Jejunum	(0)	(1)	(0)	(1)	(1)	(1)
Adenocarcinoma					1 (100%)	
Adenoma				1 (100%)		
Liver	(26)	(26)	(20)	(20)	(20)	(19)
Hepatocellular Adenoma			1 (5%)	1 (5%)		
Leukemia Granulocytic				1 (5%)		
Lymphoma Malignant						
Mesentery	(0)	(0)	(2)	(0)	(1)	(0)
Pancreas	(26)	(25)	(20)	(20)	(20)	(19)
Leukemia Granulocytic				1 (5%)		
Lymphoma Malignant						
Stomach, Forestomach	(4)	(3)	(0)	(0)	(1)	(0)
Lymphoma Malignant						
Stomach, Glandular	(4)	(1)	(0)	(0)	(1)	(0)
Lymphoma Malignant						

CARDIOVASCULAR SYSTEM

Blood Vessel	(26)	(26)	(20)	(20)	(20)	(19)
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a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Heart	(26)	(26)	(20)	(20)	(20)	(19)
Leukemia Granulocytic				1 (5%)		
Lymphoma Malignant						
Schwannoma Malignant						1 (5%)
ENDOCRINE SYSTEM						
Adrenal Cortex	(26)	(26)	(20)	(20)	(20)	(19)
Lymphoma Malignant						
Adrenal Medulla	(26)	(26)	(20)	(20)	(20)	(19)
Lymphoma Malignant						
Islets, Pancreatic	(26)	(26)	(20)	(20)	(20)	(19)
Parathyroid Gland	(26)	(26)	(20)	(20)	(19)	(19)
Adenoma						
Lymphoma Malignant						
Pituitary Gland	(26)	(26)	(20)	(20)	(20)	(19)
Lymphoma Malignant						
Pars Distalis, Adenoma			1 (5%)	1 (5%)		1 (5%)
Thyroid Gland	(25)	(24)	(20)	(20)	(20)	(19)
Lymphoma Malignant						
GENERAL BODY SYSTEM						
None						
GENITAL SYSTEM						
Coagulating Gland	(26)	(24)	(20)	(20)	(20)	(19)
Ductus Deferens	(0)	(1)	(0)	(0)	(0)	(0)
Epididymis	(26)	(26)	(20)	(20)	(20)	(19)
Fat Pad, Epididymal	(0)	(1)	(0)	(0)	(0)	(0)
Preputial Gland	(1)	(2)	(0)	(0)	(0)	(1)
Prostate, Dorsal/lateral Lobe	(26)	(26)	(20)	(20)	(20)	(18)
Lymphoma Malignant						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Prostate, Ventral Lobe Lymphoma Malignant	(26)	(26)	(20)	(20)	(20)	(18)
Seminal Vesicle	(26)	(24)	(20)	(20)	(20)	(19)
Testes	(26)	(25)	(20)	(20)	(20)	(19)
HEMATOPOIETIC SYSTEM						
Bone Marrow Leukemia Granulocytic Lymphoma Malignant	(26)	(26)	(20)	(20) 1 (5%)	(20)	(19)
Lymph Node Axillary, Lymphoma Malignant Cervical, Lymphoma Malignant Inguinal, Lymphoma Malignant Lumbar, Lymphoma Malignant Mediastinal, Lymphoma Malignant Pancreatic, Lymphoma Malignant Renal, Lymphoma Malignant	(0)	(0)	(0)	(0)	(0)	(1)
Lymph Node, Mandibular Lymphoma Malignant	(1)	(0)	(0)	(0)	(1)	(1)
Lymph Node, Mesenteric Lymphoma Malignant	(1)	(0)	(0)	(1)	(0)	(0)
Spleen Leukemia Granulocytic Lymphoma Malignant	(25)	(25)	(20)	(20) 1 (5%)	(20)	(19)
Thymus Lymphoma Malignant	(26)	(24) 1 (4%)	(20)	(20)	(20)	(19)
INTEGUMENTARY SYSTEM						
Mammary Gland Lymphoma Malignant	(26)	(25)	(19)	(20)	(20)	(19)
Skin Schwannoma Benign Squamous Cell Papilloma	(1)	(0)	(1) 1 (100%)	(0)	(0)	(3)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Subcutaneous Tissue, Fibrosarcoma						
Subcutaneous Tissue, Lipoma						1 (33%)
MUSCULOSKELETAL SYSTEM						
Bone	(0)	(0)	(0)	(0)	(0)	(0)
Bone, Femur	(26)	(26)	(20)	(20)	(20)	(19)
Skeletal Muscle	(0)	(0)	(0)	(0)	(0)	(0)
Sarcoma						
NERVOUS SYSTEM						
Brain, Brain Stem	(26)	(26)	(20)	(20)	(20)	(19)
Brain, Cerebellum	(26)	(26)	(20)	(20)	(20)	(19)
Brain, Cerebrum	(26)	(26)	(20)	(20)	(20)	(19)
Lymphoma Malignant						
Nerve Trigeminal	(2)	(1)	(0)	(0)	(0)	(0)
Peripheral Nerve, Sciatic	(2)	(1)	(0)	(0)	(0)	(0)
Peripheral Nerve, Tibial	(2)	(1)	(0)	(0)	(0)	(0)
Spinal Cord, Cervical	(2)	(1)	(0)	(0)	(0)	(0)
Spinal Cord, Lumbar	(2)	(1)	(0)	(0)	(0)	(0)
Spinal Cord, Thoracic	(2)	(1)	(0)	(0)	(0)	(0)
RESPIRATORY SYSTEM						
Lung	(4)	(3)	(1)	(1)	(1)	(0)
Lymphoma Malignant						
Sarcoma, Metastatic, Skeletal Muscle						
Nose	(4)	(3)	(0)	(0)	(1)	(0)
Lymphoma Malignant						
Trachea	(3)	(2)	(0)	(0)	(1)	(0)
Lymphoma Malignant						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
SPECIAL SENSES SYSTEM						
None						
URINARY SYSTEM						
Kidney	(26)	(25)	(20)	(20)	(20)	(19)
Leukemia Granulocytic				1 (5%)		
Lymphoma Malignant						
Urinary Bladder	(1)	(0)	(0)	(0)	(0)	(0)
SYSTEMIC LESIONS						
Multiple Organ	*(26)	*(26)	*(20)	*(20)	*(20)	*(19)
Leukemia Granulocytic				1 (5%)		
Lymphoma Malignant		1 (4%)				

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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Disposition Summary

Animals Initially In Study	20	22
Early Deaths		
Interval Sacrifice	20	22
Moribund Sacrifice		
Natural Death		
Survivors		
Animals Examined Microscopically	20	22

ALIMENTARY SYSTEM

Esophagus	(0)	(0)
Lymphoma Malignant		
Intestine Large, Colon	(0)	(0)
Intestine Small, Ileum	(0)	(0)
Intestine Small, Jejunum	(0)	(0)
Adenocarcinoma		
Adenoma		
Liver	(20)	(22)
Hepatocellular Adenoma		
Leukemia Granulocytic		
Lymphoma Malignant		
Mesentery	(1)	(0)
Pancreas	(20)	(22)
Leukemia Granulocytic		
Lymphoma Malignant		
Stomach, Forestomach	(0)	(0)
Lymphoma Malignant		
Stomach, Glandular	(0)	(0)
Lymphoma Malignant		

CARDIOVASCULAR SYSTEM

Blood Vessel	(20)	(22)
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a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 2500.StDose M

F1 25000StDose M

Heart
Leukemia Granulocytic
Lymphoma Malignant
Schwannoma Malignant

(20) (22)

ENDOCRINE SYSTEM

Adrenal Cortex
Lymphoma Malignant
Adrenal Medulla
Lymphoma Malignant
Islets, Pancreatic
Parathyroid Gland
Adenoma
Lymphoma Malignant
Pituitary Gland
Lymphoma Malignant
Pars Distalis, Adenoma
Thyroid Gland
Lymphoma Malignant

(20) (22)
(20) (22)
(20) (22)
(19) (22)
(20) (22)
(20) (22)
1 (5%)
(20) (22)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Coagulating Gland
Ductus Deferens
Epididymis
Fat Pad, Epididymal
Preputial Gland
Prostate, Dorsal/lateral Lobe
Lymphoma Malignant

(20) (22)
(0) (0)
(20) (22)
(1) (1)
(0) (0)
(20) (22)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Prostate, Ventral Lobe	(20)	(22)
Lymphoma Malignant		
Seminal Vesicle	(20)	(22)
Testes	(20)	(22)

HEMATOPOIETIC SYSTEM

Bone Marrow	(20)	(22)
Leukemia Granulocytic		
Lymphoma Malignant		
Lymph Node	(0)	(0)
Axillary, Lymphoma Malignant		
Cervical, Lymphoma Malignant		
Inguinal, Lymphoma Malignant		
Lumbar, Lymphoma Malignant		
Mediastinal, Lymphoma Malignant		
Pancreatic, Lymphoma Malignant		
Renal, Lymphoma Malignant		
Lymph Node, Mandibular	(1)	(0)
Lymphoma Malignant		
Lymph Node, Mesenteric	(0)	(0)
Lymphoma Malignant		
Spleen	(20)	(22)
Leukemia Granulocytic		
Lymphoma Malignant		
Thymus	(20)	(22)
Lymphoma Malignant		

INTEGUMENTARY SYSTEM

Mammary Gland	(17)	(22)
Lymphoma Malignant		
Skin	(1)	(0)
Schwannoma Benign		
Squamous Cell Papilloma		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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Subcutaneous Tissue, Fibrosarcoma	1 (100%)	
Subcutaneous Tissue, Lipoma		

MUSCULOSKELETAL SYSTEM

Bone	(0)	(0)
Bone, Femur	(20)	(22)
Skeletal Muscle	(0)	(0)
Sarcoma		

NERVOUS SYSTEM

Brain, Brain Stem	(20)	(22)
Brain, Cerebellum	(20)	(22)
Brain, Cerebrum	(20)	(22)
Lymphoma Malignant		
Nerve Trigeminal	(0)	(0)
Peripheral Nerve, Sciatic	(0)	(0)
Peripheral Nerve, Tibial	(0)	(0)
Spinal Cord, Cervical	(0)	(0)
Spinal Cord, Lumbar	(0)	(0)
Spinal Cord, Thoracic	(0)	(0)

RESPIRATORY SYSTEM

Lung	(0)	(2)
Lymphoma Malignant		
Sarcoma, Metastatic, Skeletal Muscle		
Nose	(0)	(0)
Lymphoma Malignant		
Trachea	(0)	(0)
Lymphoma Malignant		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 2500.StDose M

F1 25000StDose M

SPECIAL SENSES SYSTEM

None

URINARY SYSTEM

Kidney	(20)	(22)
Leukemia Granulocytic		
Lymphoma Malignant		
Urinary Bladder	(0)	(0)

SYSTEMIC LESIONS

Multiple Organ	*(20)	*(22)
Leukemia Granulocytic		
Lymphoma Malignant		

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR)
 RATS MALE

F1 Veh. Ctrl M

F1 2.5 BPA M

F1 25.0 BPA M

F1 250.0 BPA M

F1 2500.BPA M

F1 25000 BPA M

Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	3	1			1	1
Total Primary Neoplasms	4	1			1	2
Total Animals with Benign Neoplasms	1	1			1	1
Total Benign Neoplasms	1	1			1	1
Total Animals with Malignant Neoplasms	3					1
Total Malignant Neoplasms	3					1
Total Animals with Metastatic Neoplasms	1					
Total Metastatic Neoplasms	1					
Total Animals with Malignant Neoplasms Uncertain Primary Site						
Total Animals with Neoplasms Uncertain- Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
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Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	1	2	4	1	3
Total Primary Neoplasms	1	3	4	1	3
 Total Animals with Benign Neoplasms		2	3		2
Total Benign Neoplasms		3	3		2
 Total Animals with Malignant Neoplasms	1		1	1	1
Total Malignant Neoplasms	1		1	1	1
 Total Animals with Metastatic Neoplasms					
Total Metastatic Neoplasms					
 Total Animals with Malignant Neoplasms Uncertain Primary Site					
 Total Animals with Neoplasms Uncertain- Benign or Malignant					
Total Uncertain Neoplasms					

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	2
Total Primary Neoplasms	2
Total Animals with Benign Neoplasms	1
Total Benign Neoplasms	1
Total Animals with Malignant Neoplasms	1
Total Malignant Neoplasms	1
Total Animals with Metastatic Neoplasms	
Total Metastatic Neoplasms	
Total Animals with Malignant Neoplasms Uncertain Primary Site	
Total Animals with Neoplasms Uncertain- Benign or Malignant	
Total Uncertain Neoplasms	

*** END OF MALE ***

a - Number of animals examined microscopically at site and number of animals with lesion
b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 Veh. Ctrl F

F1 2.5 BPA F

F1 25.0 BPA F

F1 250.0BPA F

F1 2500.BPA F

F1 25000 BPA F

Disposition Summary

Animals Initially In Study	23	22	22	24	20	24
Early Deaths						
Interval Sacrifice	21	22	21	22	20	24
Moribund Sacrifice	1			2		
Natural Death	1		1			
Survivors						
Animals Examined Microscopically	23	22	22	24	20	24

ALIMENTARY SYSTEM

Esophagus	(3)	(0)	(1)	(2)	(0)	(0)
Intestine Large, Cecum	(0)	(0)	(0)	(0)	(0)	(0)
Intestine Large, Colon	(2)	(0)	(0)	(2)	(0)	(0)
Intestine Small, Ileum	(2)	(0)	(0)	(2)	(0)	(0)
Intestine Small, Jejunum	(0)	(0)	(0)	(0)	(0)	(0)
Liver	(23)	(22)	(22)	(24)	(20)	(24)
Mesentery	(1)	(0)	(2)	(1)	(0)	(1)
Pancreas	(23)	(22)	(22)	(24)	(20)	(24)
Stomach, Forestomach	(2)	(0)	(1)	(2)	(0)	(1)
Stomach, Glandular	(2)	(0)	(0)	(2)	(0)	(0)

CARDIOVASCULAR SYSTEM

Blood Vessel	(23)	(22)	(22)	(24)	(20)	(24)
Heart	(23)	(22)	(22)	(24)	(20)	(24)

ENDOCRINE SYSTEM

Adrenal Cortex	(23)	(22)	(22)	(24)	(20)	(24)
Adrenal Medulla	(23)	(22)	(22)	(24)	(20)	(24)
Islets, Pancreatic	(23)	(22)	(22)	(24)	(20)	(24)
Carcinoma				1 (4%)		
Parathyroid Gland	(23)	(21)	(20)	(23)	(20)	(23)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
Adenoma						
Pituitary Gland	(23)	(22)	(22)	(24)	(20)	(24)
Schwannoma Malignant, Metastatic, Tissue Nos						
Pars Distalis, Adenoma			1 (5%)	1 (4%)		
Pars Distalis, Carcinoma						
Thyroid Gland	(23)	(22)	(21)	(24)	(20)	(24)
Follicular Cell, Adenoma						1 (4%)
GENERAL BODY SYSTEM						
Tissue NOS	(0)	(0)	(0)	(0)	(0)	(0)
Schwannoma Malignant						
GENITAL SYSTEM						
Clitoral Gland	(0)	(0)	(1)	(0)	(2)	(0)
Fat Pad, Ovarian/parametrial	(1)	(0)	(0)	(0)	(0)	(2)
Ovary	(23)	(22)	(22)	(24)	(20)	(24)
Oviduct	(23)	(22)	(21)	(24)	(20)	(24)
Uterus	(23)	(22)	(21)	(24)	(20)	(24)
Polyp Stromal	1 (4%)		1 (5%)		3 (15%)	3 (13%)
Endometrium, Adenoma						
Vagina	(23)	(22)	(21)	(24)	(20)	(24)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(23)	(22)	(22)	(24)	(20)	(24)
Lymph Node	(0)	(0)	(1)	(1)	(0)	(0)
Lymph Node, Mandibular	(0)	(1)	(1)	(1)	(0)	(0)
Lymph Node, Mesenteric	(0)	(0)	(0)	(0)	(0)	(0)
Spleen	(23)	(22)	(22)	(24)	(20)	(24)
Thymus	(23)	(22)	(22)	(24)	(20)	(24)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
INTEGUMENTARY SYSTEM						
Mammary Gland	(23)	(22)	(22)	(24)	(20)	(24)
Adenocarcinoma		1 (5%)	1 (5%)			
Adenosquamous Carcinoma						
Fibroadenoma	2 (9%)	3 (14%)	2 (9%)	1 (4%)	2 (10%)	5 (21%)
Fibroadenoma, Multiple			1 (5%)			1 (4%)
Skin	(0)	(0)	(0)	(0)	(1)	(0)
Subcutaneous Tissue, Fibrosarcoma						
MUSCULOSKELETAL SYSTEM						
Bone	(0)	(1)	(0)	(0)	(0)	(0)
Bone, Femur	(23)	(22)	(22)	(24)	(20)	(24)
Skeletal Muscle	(0)	(0)	(0)	(0)	(0)	(0)
NERVOUS SYSTEM						
Brain, Brain Stem	(23)	(22)	(22)	(24)	(20)	(24)
Meningioma Malignant						
Brain, Cerebellum	(23)	(22)	(22)	(24)	(20)	(24)
Meningioma Malignant						
Brain, Cerebrum	(23)	(22)	(22)	(24)	(20)	(24)
Nerve Trigeminal	(1)	(0)	(1)	(0)	(0)	(4)
Peripheral Nerve, Sciatic	(1)	(0)	(1)	(0)	(0)	(4)
Peripheral Nerve, Tibial	(1)	(0)	(1)	(0)	(0)	(4)
Spinal Cord, Cervical	(1)	(0)	(1)	(0)	(0)	(4)
Spinal Cord, Lumbar	(1)	(0)	(1)	(0)	(0)	(4)
Spinal Cord, Thoracic	(1)	(0)	(1)	(0)	(0)	(4)
RESPIRATORY SYSTEM						
Lung	(2)	(1)	(4)	(3)	(0)	(0)
Nose	(2)	(0)	(1)	(2)	(0)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
Trachea	(2)	(0)	(1)	(2)	(0)	(0)
<hr/>						
SPECIAL SENSES SYSTEM						
Eye	(0)	(0)	(0)	(0)	(0)	(0)
Zymbal's Gland Carcinoma	(0)	(0)	(0)	(0)	(0)	(0)
<hr/>						
URINARY SYSTEM						
Kidney	(23)	(22)	(22)	(24)	(20)	(24)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 0.05 EE2 F

F1 0.50 EE2 F

F1 Veh. StDose F

F1 2.5 StDose F

F1 25.0 StDose F

F1 250.0StDose F

Disposition Summary

Animals Initially In Study	26	26	20	22	20	22
Early Deaths						
Interval Sacrifice	24	26	20	22	20	22
Moribund Sacrifice	1					
Natural Death	1					
Survivors						
Animals Examined Microscopically	26	26	20	22	20	22

ALIMENTARY SYSTEM

Esophagus	(2)	(0)	(0)	(0)	(0)	(0)
Intestine Large, Cecum	(0)	(1)	(0)	(0)	(0)	(0)
Intestine Large, Colon	(1)	(0)	(0)	(0)	(0)	(0)
Intestine Small, Ileum	(1)	(0)	(0)	(0)	(0)	(0)
Intestine Small, Jejunum	(0)	(0)	(0)	(0)	(0)	(0)
Liver	(26)	(26)	(20)	(22)	(20)	(22)
Mesentery	(1)	(2)	(1)	(0)	(0)	(0)
Pancreas	(26)	(26)	(20)	(22)	(20)	(22)
Stomach, Forestomach	(2)	(0)	(0)	(0)	(0)	(0)
Stomach, Glandular	(1)	(0)	(0)	(0)	(0)	(1)

CARDIOVASCULAR SYSTEM

Blood Vessel	(26)	(26)	(20)	(22)	(20)	(22)
Heart	(26)	(26)	(20)	(22)	(20)	(22)

ENDOCRINE SYSTEM

Adrenal Cortex	(26)	(26)	(20)	(22)	(20)	(22)
Adrenal Medulla	(26)	(26)	(20)	(22)	(20)	(22)
Islets, Pancreatic	(26)	(26)	(20)	(22)	(20)	(22)
Carcinoma						
Parathyroid Gland	(26)	(25)	(20)	(21)	(20)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Adenoma						1 (5%)
Pituitary Gland	(25)	(26)	(20)	(22)	(20)	(22)
Schwannoma Malignant, Metastatic, Tissue Nos						
Pars Distalis, Adenoma	1 (4%)	1 (4%)			1 (5%)	
Pars Distalis, Carcinoma					1 (5%)	
Thyroid Gland	(26)	(26)	(20)	(22)	(20)	(22)
Follicular Cell, Adenoma						
GENERAL BODY SYSTEM						
Tissue NOS	(0)	(0)	(0)	(0)	(0)	(0)
Schwannoma Malignant						
GENITAL SYSTEM						
Clitoral Gland	(1)	(0)	(0)	(1)	(0)	(0)
Fat Pad, Ovarian/parametrial	(1)	(0)	(0)	(0)	(0)	(0)
Ovary	(25)	(26)	(20)	(22)	(20)	(22)
Oviduct	(25)	(26)	(20)	(22)	(20)	(22)
Uterus	(25)	(26)	(20)	(22)	(20)	(22)
Polyp Stromal	1 (4%)			1 (5%)		1 (5%)
Endometrium, Adenoma						1 (5%)
Vagina	(25)	(26)	(20)	(22)	(20)	(22)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(26)	(26)	(20)	(22)	(20)	(22)
Lymph Node	(0)	(0)	(0)	(0)	(0)	(0)
Lymph Node, Mandibular	(1)	(1)	(0)	(0)	(0)	(1)
Lymph Node, Mesenteric	(0)	(0)	(0)	(0)	(0)	(0)
Spleen	(26)	(26)	(20)	(22)	(20)	(22)
Thymus	(25)	(26)	(20)	(22)	(20)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
INTEGUMENTARY SYSTEM						
Mammary Gland	(26)	(26)	(20)	(22)	(20)	(22)
Adenocarcinoma	1 (4%)					
Adenosquamous Carcinoma	1 (4%)					
Fibroadenoma	2 (8%)	4 (15%)	4 (20%)	1 (5%)	1 (5%)	1 (5%)
Fibroadenoma, Multiple						
Skin	(0)	(0)	(0)	(0)	(0)	(1)
Subcutaneous Tissue, Fibrosarcoma						1 (100%)
MUSCULOSKELETAL SYSTEM						
Bone	(0)	(0)	(0)	(0)	(0)	(0)
Bone, Femur	(26)	(26)	(20)	(22)	(20)	(22)
Skeletal Muscle	(0)	(0)	(0)	(0)	(0)	(0)
NERVOUS SYSTEM						
Brain, Brain Stem	(26)	(26)	(20)	(22)	(20)	(22)
Meningioma Malignant						
Brain, Cerebellum	(26)	(26)	(20)	(22)	(20)	(22)
Meningioma Malignant						
Brain, Cerebrum	(26)	(26)	(20)	(22)	(20)	(22)
Nerve Trigeminal	(2)	(4)	(0)	(0)	(0)	(1)
Peripheral Nerve, Sciatic	(2)	(4)	(0)	(0)	(0)	(1)
Peripheral Nerve, Tibial	(2)	(4)	(0)	(0)	(0)	(1)
Spinal Cord, Cervical	(2)	(4)	(0)	(0)	(0)	(1)
Spinal Cord, Lumbar	(2)	(4)	(0)	(0)	(0)	(1)
Spinal Cord, Thoracic	(2)	(4)	(0)	(0)	(0)	(1)
RESPIRATORY SYSTEM						
Lung	(2)	(1)	(1)	(0)	(1)	(1)
Nose	(1)	(0)	(0)	(0)	(0)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Trachea	(2)	(0)	(0)	(0)	(0)	(0)
<hr/>						
SPECIAL SENSES SYSTEM						
Eye	(1)	(0)	(1)	(0)	(0)	(0)
Zymbal's Gland	(0)	(0)	(0)	(0)	(0)	(1)
Carcinoma						1 (100%)
<hr/>						
URINARY SYSTEM						
Kidney	(26)	(26)	(20)	(22)	(20)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
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Disposition Summary

Animals Initially In Study	20	22
Early Deaths		
Interval Sacrifice	20	20
Moribund Sacrifice		2
Natural Death		
Survivors		
Animals Examined Microscopically	20	22

ALIMENTARY SYSTEM

Esophagus	(0)	(2)
Intestine Large, Cecum	(0)	(0)
Intestine Large, Colon	(0)	(2)
Intestine Small, Ileum	(1)	(2)
Intestine Small, Jejunum	(1)	(0)
Liver	(20)	(22)
Mesentery	(2)	(0)
Pancreas	(20)	(22)
Stomach, Forestomach	(0)	(2)
Stomach, Glandular	(0)	(2)

CARDIOVASCULAR SYSTEM

Blood Vessel	(20)	(22)
Heart	(20)	(22)

ENDOCRINE SYSTEM

Adrenal Cortex	(20)	(22)
Adrenal Medulla	(20)	(22)
Islets, Pancreatic	(20)	(22)
Carcinoma		
Parathyroid Gland	(19)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
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Adenoma		
Pituitary Gland	(20)	(22)
Schwannoma Malignant, Metastatic, Tissue Nos		1 (5%)
Pars Distalis, Adenoma		
Pars Distalis, Carcinoma		
Thyroid Gland	(20)	(22)
Follicular Cell, Adenoma		

GENERAL BODY SYSTEM

Tissue NOS	(0)	(1)
Schwannoma Malignant		1 (100%)

GENITAL SYSTEM

Clitoral Gland	(1)	(0)
Fat Pad, Ovarian/parametrial	(0)	(1)
Ovary	(20)	(22)
Oviduct	(20)	(22)
Uterus	(20)	(22)
Polyp Stromal		
Endometrium, Adenoma		
Vagina	(20)	(22)

HEMATOPOIETIC SYSTEM

Bone Marrow	(20)	(22)
Lymph Node	(0)	(0)
Lymph Node, Mandibular	(0)	(0)
Lymph Node, Mesenteric	(1)	(0)
Spleen	(20)	(22)
Thymus	(20)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 2500.StDose F

F1 25000StDose F

INTEGUMENTARY SYSTEM

Mammary Gland	(20)	(22)
Adenocarcinoma		
Adenosquamous Carcinoma		
Fibroadenoma	1 (5%)	2 (9%)
Fibroadenoma, Multiple		
Skin	(0)	(0)
Subcutaneous Tissue, Fibrosarcoma		

MUSCULOSKELETAL SYSTEM

Bone	(0)	(0)
Bone, Femur	(20)	(22)
Skeletal Muscle	(0)	(2)

NERVOUS SYSTEM

Brain, Brain Stem	(20)	(22)
Meningioma Malignant		1 (5%)
Brain, Cerebellum	(20)	(22)
Meningioma Malignant		1 (5%)
Brain, Cerebrum	(20)	(22)
Nerve Trigeminal	(0)	(2)
Peripheral Nerve, Sciatic	(0)	(2)
Peripheral Nerve, Tibial	(0)	(2)
Spinal Cord, Cervical	(0)	(2)
Spinal Cord, Lumbar	(0)	(2)
Spinal Cord, Thoracic	(0)	(2)

RESPIRATORY SYSTEM

Lung	(0)	(4)
Nose	(0)	(2)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 2500.StDose F

F1 25000StDose F

Trachea

(0)

(2)

SPECIAL SENSES SYSTEM

Eye

(0)

(0)

Zymbal's Gland

(0)

(0)

Carcinoma

URINARY SYSTEM

Kidney

(20)

(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR)
 RATS FEMALE

F1 Veh. Ctrl F F1 2.5 BPA F F1 25.0 BPA F F1 250.0BPA F F1 2500.BPA F F1 25000 BPA F

Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	3	4	6	3	5	9
Total Primary Neoplasms	3	4	6	3	5	10
Total Animals with Benign Neoplasms	3	3	5	2	5	9
Total Benign Neoplasms	3	3	5	2	5	10
Total Animals with Malignant Neoplasms		1	1	1		
Total Malignant Neoplasms		1	1	1		
Total Animals with Metastatic Neoplasms						
Total Metastatic Neoplasms						
Total Animals with Malignant Neoplasms Uncertain Primary Site						
Total Animals with Neoplasms Uncertain- Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
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Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	6	4	4	2	3	6
Total Primary Neoplasms	6	5	4	2	3	6
Total Animals with Benign Neoplasms	4	4	4	2	2	4
Total Benign Neoplasms	4	5	4	2	2	4
Total Animals with Malignant Neoplasms	2				1	2
Total Malignant Neoplasms	2				1	2
Total Animals with Metastatic Neoplasms						
Total Metastatic Neoplasms						
Total Animals with Malignant Neoplasms Uncertain Primary Site						
Total Animals with Neoplasms Uncertain- Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
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Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	1	3
Total Primary Neoplasms	1	5
Total Animals with Benign Neoplasms	1	2
Total Benign Neoplasms	1	2
Total Animals with Malignant Neoplasms		1
Total Malignant Neoplasms		3
Total Animals with Metastatic Neoplasms		1
Total Metastatic Neoplasms		1
Total Animals with Malignant Neoplasms Uncertain Primary Site		
Total Animals with Neoplasms Uncertain- Benign or Malignant		
Total Uncertain Neoplasms		

*** END OF REPORT ***

a - Number of animals examined microscopically at site and number of animals with lesion
b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
Bisphenol A
CAS Number: 80-05-7
2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

NTP Study Number: C10034
Lock Date: 08/16/2017
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: 09/29/2017

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 Veh. Ctrl M

F1 2.5 BPA M

F1 25.0 BPA M

F1 250.0BPA M

F1 2500.BPA M

F1 25000BPA M

Disposition Summary

	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Animals Initially In Study	50	48	48	50	50	46
Early Deaths						
Moribund Sacrifice	20	13	21	17	18	23
Natural Death	10	13	3	11	7	8
Survivors						
Moribund Sacrifice	4	3	6	4	6	4
Natural Death	1	3	1	4	3	
Terminal Sacrifice	15	16	17	14	16	11
Animals Examined Microscopically	50	48	48	50	50	46

ALIMENTARY SYSTEM

Esophagus	(35)	(32)	(31)	(36)	(34)	(35)
Intestine Large, Cecum	(0)	(0)	(0)	(0)	(0)	(0)
Adenoma						
Lymphoma Malignant						
Intestine Large, Colon	(29)	(22)	(31)	(30)	(27)	(30)
Adenocarcinoma	1 (3%)		1 (3%)			
Adenoma					1 (4%)	
Leukemia Granulocytic	1 (3%)					
Lymphoma Malignant				1 (3%)	2 (7%)	
Intestine Large, Rectum	(0)	(0)	(0)	(0)	(0)	(2)
Leiomyosarcoma						1 (50%)
Intestine Small, Duodenum	(0)	(0)	(0)	(0)	(1)	(0)
Adenocarcinoma					1 (100%)	
Adenoma						
Intestine Small, Ileum	(26)	(17)	(27)	(24)	(25)	(28)
Leukemia Granulocytic	1 (4%)					
Lymphoma Malignant					1 (4%)	1 (4%)
Intestine Small, Jejunum	(0)	(0)	(1)	(0)	(1)	(1)
Adenocarcinoma					1 (100%)	1 (100%)
Adenoma						
Liver	(50)	(47)	(48)	(50)	(50)	(45)
Fibrosarcoma, Metastatic, Skin				1 (2%)		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Hemangiosarcoma		1 (2%)		1 (2%)	1 (2%)	
Hepatocellular Adenoma	1 (2%)			2 (4%)	1 (2%)	
Hepatocellular Adenoma, Multiple			1 (2%)		1 (2%)	
Hepatocellular Carcinoma				2 (4%)	1 (2%)	3 (7%)
Histiocytic Sarcoma	1 (2%)					2 (4%)
Leukemia Granulocytic	1 (2%)				1 (2%)	
Leukemia Mononuclear	1 (2%)		1 (2%)			
Lipoma				1 (2%)		
Lymphoma Malignant	2 (4%)	1 (2%)	3 (6%)	3 (6%)	3 (6%)	2 (4%)
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Mesentery	(1)	(0)	(4)	(1)	(1)	(4)
Leukemia Mononuclear						
Liposarcoma, Metastatic, Kidney						
Lymphoma Malignant						
Oral Mucosa	(1)	(0)	(1)	(0)	(1)	(0)
Fibrosarcoma					1 (100%)	
Squamous Cell Carcinoma	1 (100%)		1 (100%)			
Squamous Cell Papilloma						
Pancreas	(50)	(46)	(48)	(49)	(48)	(44)
Fibroma					1 (2%)	
Histiocytic Sarcoma	1 (2%)					
Leukemia Granulocytic	1 (2%)				1 (2%)	
Leukemia Mononuclear	1 (2%)					
Liposarcoma, Metastatic, Kidney						
Lymphoma Malignant	2 (4%)	1 (2%)	1 (2%)	2 (4%)	3 (6%)	2 (5%)
Sarcoma, Metastatic, Spleen						
Acinar Cell, Adenoma	1 (2%)			1 (2%)		
Salivary Glands	(0)	(0)	(0)	(0)	(0)	(0)
Stomach, Forestomach	(36)	(31)	(33)	(36)	(32)	(34)
Lymphoma Malignant						
Squamous Cell Carcinoma						
Squamous Cell Papilloma	2 (6%)					
Stomach, Glandular	(34)	(30)	(33)	(32)	(33)	(33)
Adenoma						
Leukemia Mononuclear						
Lymphoma Malignant					1 (3%)	

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Schwannoma Malignant						
Squamous Cell Papilloma			1 (3%)			
Tongue	(0)	(1)	(0)	(0)	(0)	(1)
Squamous Cell Papilloma						1 (100%)
CARDIOVASCULAR SYSTEM						
Blood Vessel	(50)	(48)	(48)	(50)	(50)	(46)
Histiocytic Sarcoma						1 (2%)
Leukemia Granulocytic						
Lymphoma Malignant						
Mesothelioma Malignant						
Heart	(50)	(48)	(48)	(50)	(50)	(46)
Histiocytic Sarcoma						1 (2%)
Leukemia Granulocytic	1 (2%)				1 (2%)	
Leukemia Mononuclear	1 (2%)		1 (2%)			
Lymphoma Malignant	1 (2%)	1 (2%)		2 (4%)	3 (6%)	2 (4%)
Mesothelioma Malignant						
Schwannoma Malignant						
Atrium, Mesothelioma Malignant						
ENDOCRINE SYSTEM						
Adrenal Cortex	(50)	(48)	(48)	(50)	(48)	(45)
Adenoma	1 (2%)			1 (2%)	2 (4%)	
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear	1 (2%)		1 (2%)			
Lymphoma Malignant	1 (2%)	1 (2%)	1 (2%)	1 (2%)	2 (4%)	2 (4%)
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Adrenal Medulla	(50)	(48)	(47)	(50)	(50)	(45)
Leukemia Granulocytic						
Lymphoma Malignant				1 (2%)		
Pheochromocytoma Benign	3 (6%)	3 (6%)	2 (4%)	3 (6%)	2 (4%)	
Pheochromocytoma Malignant	1 (2%)	1 (2%)	1 (2%)			1 (2%)
Bilateral, Pheochromocytoma Benign						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Bilateral, Pheochromocytoma Malignant	1 (2%)				1 (2%)	
Islets, Pancreatic	(50)	(46)	(48)	(48)	(49)	(45)
Adenoma	2 (4%)	3 (7%)	7 (15%)	1 (2%)	4 (8%)	5 (11%)
Carcinoma		3 (7%)				
Histiocytic Sarcoma	1 (2%)					
Leukemia Granulocytic						
Lymphoma Malignant				1 (2%)	1 (2%)	
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Parathyroid Gland	(49)	(46)	(47)	(50)	(50)	(46)
Adenoma						1 (2%)
Leukemia Granulocytic						
Lymphoma Malignant				1 (2%)		
Pituitary Gland	(48)	(48)	(48)	(50)	(50)	(45)
Craniopharyngioma						
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear	1 (2%)		1 (2%)			
Lymphoma Malignant	2 (4%)	1 (2%)	2 (4%)	2 (4%)	1 (2%)	1 (2%)
Pars Distalis, Adenoma	21 (44%)	25 (52%)	23 (48%)	21 (42%)	21 (42%)	17 (38%)
Pars Distalis, Carcinoma					1 (2%)	
Pars Intermedia, Adenoma		1 (2%)	1 (2%)			
Thyroid Gland	(46)	(40)	(47)	(44)	(44)	(44)
Leukemia Granulocytic						
Lymphoma Malignant	1 (2%)			1 (2%)	1 (2%)	1 (2%)
C-cell, Adenoma					2 (5%)	
C-cell, Carcinoma		1 (3%)		1 (2%)		
Follicular Cell, Adenoma						
Follicular Cell, Carcinoma		1 (3%)	1 (2%)			
GENERAL BODY SYSTEM						
Peritoneum	(0)	(0)	(0)	(0)	(0)	(1)
Paraganglioma						1 (100%)
Tissue NOS	(2)	(0)	(0)	(0)	(1)	(1)
Leukemia Mononuclear	1 (50%)					
Mesothelioma Malignant						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Sarcoma	1 (50%)					
Sarcoma, Metastatic, Uncertain Primary Site					1 (100%)	
GENITAL SYSTEM						
Bulbourethral Gland	(1)	(0)	(0)	(0)	(0)	(0)
Coagulating Gland	(47)	(46)	(47)	(49)	(46)	(45)
Histiocytic Sarcoma	1 (2%)					
Leukemia Granulocytic						
Leukemia Mononuclear			1 (2%)			
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Ductus Deferens	(0)	(0)	(1)	(0)	(0)	(0)
Epididymis	(49)	(48)	(48)	(50)	(50)	(46)
Histiocytic Sarcoma	1 (2%)					
Leukemia Granulocytic						
Lymphoma Malignant	2 (4%)	1 (2%)		1 (2%)	1 (2%)	1 (2%)
Mesothelioma Malignant				2 (4%)		1 (2%)
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Fat Pad, Epididymal	(2)	(2)	(0)	(1)	(3)	(1)
Leukemia Granulocytic					1 (33%)	
Lipoma				1 (100%)		
Sarcoma, Metastatic, Uncertain Primary Site					1 (33%)	
Preputial Gland	(15)	(15)	(15)	(13)	(16)	(9)
Adenoma						
Carcinoma	3 (20%)	2 (13%)	5 (33%)	5 (38%)	8 (50%)	3 (33%)
Carcinosarcoma						
Lymphoma Malignant						
Squamous Cell Carcinoma						
Squamous Cell Papilloma	1 (7%)	1 (7%)		1 (8%)	1 (6%)	
Bilateral, Carcinoma	1 (7%)					
Prostate, Dorsal/lateral Lobe	(50)	(48)	(48)	(50)	(50)	(46)
Adenocarcinoma						
Adenoma						1 (2%)
Histiocytic Sarcoma	1 (2%)					
Leukemia Granulocytic						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Leukemia Mononuclear			1 (2%)			
Lymphoma Malignant	1 (2%)	1 (2%)	1 (2%)	1 (2%)	3 (6%)	1 (2%)
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Prostate, Ventral Lobe	(50)	(48)	(48)	(49)	(49)	(46)
Adenoma	6 (12%)	5 (10%)	2 (4%)	4 (8%)	2 (4%)	3 (7%)
Adenoma, Multiple		2 (4%)				3 (7%)
Histiocytic Sarcoma	1 (2%)					
Leukemia Granulocytic						
Leukemia Mononuclear			1 (2%)			
Lymphoma Malignant		1 (2%)	1 (2%)	1 (2%)		1 (2%)
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Seminal Vesicle	(44)	(42)	(45)	(41)	(44)	(43)
Adenoma				1 (2%)		
Carcinosarcoma						
Histiocytic Sarcoma	1 (2%)					
Leukemia Granulocytic						
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Testes	(49)	(48)	(48)	(50)	(50)	(46)
Histiocytic Sarcoma	1 (2%)					
Mesothelioma Malignant				2 (4%)		1 (2%)
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Seminoma Benign						
Seminoma Malignant		1 (2%)				
Interstitial Cell, Adenoma						
HEMATOPOIETIC SYSTEM						
Bone Marrow	(48)	(48)	(48)	(49)	(50)	(45)
Leukemia Granulocytic	1 (2%)				1 (2%)	
Leukemia Mononuclear	1 (2%)		1 (2%)			
Lymphoma Malignant	2 (4%)	1 (2%)	3 (6%)	3 (6%)	3 (6%)	2 (4%)
Osteosarcoma, Metastatic, Bone, Femur						
Lymph Node	(15)	(9)	(13)	(15)	(16)	(11)
Axillary, Leukemia Granulocytic						
Axillary, Lymphoma Malignant		1 (11%)		1 (7%)	1 (6%)	1 (9%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

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2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Brachial, Leukemia Granulocytic						
Brachial, Lymphoma Malignant			1 (8%)		1 (6%)	
Cervical, Leukemia Granulocytic						
Cervical, Lymphoma Malignant	1 (7%)		1 (8%)		1 (6%)	1 (9%)
Inguinal, Leukemia Granulocytic						
Inguinal, Lymphoma Malignant					1 (6%)	1 (9%)
Lumbar, Carcinoma, Metastatic, Preputial Gland						
Lumbar, Leukemia Granulocytic						
Lumbar, Lymphoma Malignant	1 (7%)	1 (11%)	2 (15%)	2 (13%)	1 (6%)	1 (9%)
Lumbar, Sarcoma, Metastatic, Skin					1 (6%)	
Mediastinal, Histiocytic Sarcoma	1 (7%)					1 (9%)
Mediastinal, Leukemia Granulocytic	1 (7%)					
Mediastinal, Lymphoma Malignant	1 (7%)	1 (11%)	1 (8%)	2 (13%)	2 (13%)	1 (9%)
Pancreatic, Leukemia Granulocytic	1 (7%)					
Pancreatic, Lymphoma Malignant	2 (13%)	1 (11%)	1 (8%)	1 (7%)	2 (13%)	2 (18%)
Popliteal, Lymphoma Malignant					1 (6%)	1 (9%)
Renal, Hemangioma					1 (6%)	
Renal, Leukemia Granulocytic	1 (7%)					
Renal, Leukemia Mononuclear						
Renal, Lymphoma Malignant	2 (13%)		1 (8%)		2 (13%)	2 (18%)
Lymph Node, Mandibular	(7)	(10)	(9)	(8)	(9)	(4)
Leukemia Granulocytic	1 (14%)					
Leukemia Mononuclear						
Lymphoma Malignant	2 (29%)	1 (10%)	1 (11%)	2 (25%)	2 (22%)	2 (50%)
Squamous Cell Carcinoma, Metastatic, Skin						
Lymph Node, Mesenteric	(0)	(1)	(1)	(1)	(2)	(3)
Leukemia Granulocytic						
Lymphoma Malignant		1 (100%)		1 (100%)	1 (50%)	2 (67%)
Spleen	(49)	(47)	(48)	(47)	(49)	(45)
Hemangiosarcoma					1 (2%)	
Histiocytic Sarcoma						1 (2%)
Leukemia Granulocytic	1 (2%)				1 (2%)	
Leukemia Mononuclear	1 (2%)		1 (2%)			
Liposarcoma						
Lymphoma Malignant	2 (4%)	1 (2%)	3 (6%)	3 (6%)	3 (6%)	2 (4%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Sarcoma		2 (4%)	1 (2%)			
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Thymus	(50)	(46)	(46)	(49)	(49)	(43)
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear			1 (2%)			
Lymphoma Malignant	2 (4%)	1 (2%)	1 (2%)	2 (4%)	2 (4%)	2 (5%)
Mesothelioma Malignant						
INTEGUMENTARY SYSTEM						
Mammary Gland	(50)	(48)	(48)	(50)	(50)	(45)
Adenocarcinoma						
Adenocarcinoma, Multiple	1 (2%)					
Adenoma						
Fibroadenoma		1 (2%)	1 (2%)	2 (4%)	1 (2%)	1 (2%)
Fibroadenoma, Multiple		1 (2%)			1 (2%)	
Fibroma	2 (4%)				2 (4%)	
Fibroma, Multiple						1 (2%)
Histiocytic Sarcoma						
Leukemia Granulocytic						
Lipoma						
Lymphoma Malignant		1 (2%)			1 (2%)	
Skin	(12)	(16)	(14)	(14)	(19)	(17)
Basal Cell Adenoma				1 (7%)		1 (6%)
Basal Cell Carcinoma						
Fibroma	1 (8%)					
Keratoacanthoma						
Pilomatrixoma	1 (8%)					
Squamous Cell Carcinoma		2 (13%)	1 (7%)			
Squamous Cell Papilloma		2 (13%)	1 (7%)	2 (14%)	2 (11%)	
Sebaceous Gland, Adenoma						1 (6%)
Subcutaneous Tissue, Fibroma		1 (6%)	1 (7%)	1 (7%)	1 (5%)	1 (6%)
Subcutaneous Tissue, Fibrosarcoma			2 (14%)	1 (7%)		2 (12%)
Subcutaneous Tissue, Histiocytic Sarcoma						1 (6%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Subcutaneous Tissue, Histiocytic Sarcoma, Metastatic, Liver						1 (6%)
Subcutaneous Tissue, Lipoma		1 (6%)	1 (7%)	1 (7%)	1 (5%)	
Subcutaneous Tissue, Myxosarcoma			1 (7%)			
Subcutaneous Tissue, Sarcoma		1 (6%)			1 (5%)	
Subcutaneous Tissue, Schwannoma Malignant						
MUSCULOSKELETAL SYSTEM						
Bone	(1)	(0)	(1)	(2)	(2)	(1)
Cranium, Lymphoma Malignant						
Cranium, Osteosarcoma					1 (50%)	
Mandible, Squamous Cell Carcinoma, Deep Invasion						
Rib, Osteosarcoma	1 (100%)					1 (100%)
Tibia, Osteosarcoma				1 (50%)		
Vertebra, Chordoma				1 (50%)		
Vertebra, Lymphoma Malignant						
Bone, Femur	(50)	(48)	(48)	(50)	(50)	(46)
Osteosarcoma						
Skeletal Muscle	(2)	(0)	(3)	(1)	(1)	(1)
Lymphoma Malignant						
Mesothelioma Malignant						
NERVOUS SYSTEM						
Brain, Brain Stem	(49)	(48)	(48)	(49)	(49)	(46)
Carcinoma, Deep Invasion					1 (2%)	
Granular Cell Tumor Benign		1 (2%)				
Granular Cell Tumor Malignant						
Leukemia Granulocytic						
Leukemia Mononuclear	1 (2%)		1 (2%)			
Lymphoma Malignant			1 (2%)		2 (4%)	
Brain, Cerebellum	(50)	(48)	(48)	(49)	(49)	(46)
Granular Cell Tumor Malignant						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Leukemia Granulocytic						
Leukemia Mononuclear	1 (2%)		1 (2%)			
Lymphoma Malignant					1 (2%)	
Brain, Cerebrum	(50)	(48)	(48)	(49)	(49)	(46)
Granular Cell Tumor Benign				4 (8%)	1 (2%)	
Granular Cell Tumor Malignant	1 (2%)	1 (2%)				
Leukemia Granulocytic						
Leukemia Mononuclear	1 (2%)		1 (2%)			
Lymphoma Malignant			2 (4%)	1 (2%)		1 (2%)
Meningioma Benign						
Oligodendroglioma Malignant						
Sarcoma						
Nerve Trigeminal	(11)	(6)	(5)	(9)	(14)	(8)
Lymphoma Malignant						
Peripheral Nerve, Sciatic	(11)	(6)	(5)	(9)	(14)	(8)
Histiocytic Sarcoma	1 (9%)					
Peripheral Nerve, Tibial	(11)	(6)	(5)	(9)	(14)	(8)
Histiocytic Sarcoma	1 (9%)					
Spinal Cord, Cervical	(11)	(6)	(5)	(8)	(14)	(8)
Spinal Cord, Lumbar	(11)	(6)	(5)	(8)	(14)	(8)
Lymphoma Malignant						
Spinal Cord, Thoracic	(11)	(6)	(5)	(8)	(14)	(8)
RESPIRATORY SYSTEM						
Lung	(38)	(39)	(34)	(38)	(35)	(36)
Alveolar/Bronchiolar Adenoma	1 (3%)					
Alveolar/Bronchiolar Carcinoma		1 (3%)				
Carcinoma, Metastatic, Zymbal'S Gland						
Chordoma, Metastatic, Bone				1 (3%)		
Histiocytic Sarcoma	1 (3%)					1 (3%)
Leukemia Granulocytic	1 (3%)				1 (3%)	
Leukemia Mononuclear	1 (3%)		1 (3%)			
Lymphoma Malignant	2 (5%)	1 (3%)	2 (6%)	2 (5%)	3 (9%)	2 (6%)
Mesothelioma Malignant						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Neural Crest Tumor, Malignant, Metastatic, Ear						
Osteosarcoma, Metastatic, Bone, Femur						
Sarcoma						
Sarcoma, Metastatic, Tissue Nos						
Sarcoma, Metastatic, Uncertain Primary Site					1 (3%)	
Nose	(33)	(32)	(31)	(34)	(32)	(35)
Adenoma						
Leukemia Granulocytic	1 (3%)				1 (3%)	
Leukemia Mononuclear						
Lymphoma Malignant	2 (6%)	1 (3%)	3 (10%)	1 (3%)	2 (6%)	2 (6%)
Sarcoma, Metastatic, Brain, Cerebrum						
Squamous Cell Carcinoma			1 (3%)		2 (6%)	
Trachea	(31)	(23)	(30)	(27)	(32)	(33)
Lymphoma Malignant						
SPECIAL SENSES SYSTEM						
Ear	(0)	(0)	(0)	(0)	(0)	(0)
Neural Crest Tumor, Benign						
Neural Crest Tumor, Malignant						
Eye	(4)	(1)	(0)	(1)	(1)	(1)
Lymphoma Malignant						
Lacrimal Gland	(0)	(0)	(0)	(0)	(0)	(0)
Zymbal's Gland	(2)	(0)	(3)	(0)	(1)	(1)
Adenoma			2 (67%)			1 (100%)
Carcinoma	1 (50%)		1 (33%)			
URINARY SYSTEM						
Kidney	(50)	(48)	(48)	(50)	(50)	(45)
Adenoma, Tubular						
Histiocytic Sarcoma	1 (2%)					
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear	1 (2%)		1 (2%)			
Lipoma	1 (2%)					

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Liposarcoma						
Lymphoma Malignant	2 (4%)	1 (2%)	1 (2%)	3 (6%)	3 (6%)	2 (4%)
Mesenchymal Tumor Malignant						
Oncocytoma Benign			1 (2%)			
Sarcoma, Metastatic, Spleen		1 (2%)				
Urinary Bladder	(4)	(1)	(3)	(5)	(4)	(3)
Transitional Epithelium, Carcinoma				1 (20%)		
Transitional Epithelium, Papilloma						1 (33%)
SYSTEMIC LESIONS						
Multiple Organ	*(50)	*(48)	*(48)	*(50)	*(50)	*(46)
Histiocytic Sarcoma	1 (2%)					2 (4%)
Leukemia Granulocytic	1 (2%)				1 (2%)	
Leukemia Mononuclear	1 (2%)		1 (2%)			
Lymphoma Malignant	2 (4%)	1 (2%)	3 (6%)	3 (6%)	3 (6%)	3 (7%)
Mesothelioma Malignant				2 (4%)		1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
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Disposition Summary

Animals Initially In Study	26	26	50	48	48	50
Early Deaths						
Moribund Sacrifice	12	8	16	17	19	25
Natural Death	3	3	10	9	4	5
Survivors						
Moribund Sacrifice	2	2	4	3	5	4
Natural Death		1	3	3	4	3
Terminal Sacrifice	9	12	17	16	16	13
Animals Examined Microscopically	26	26	50	48	48	50

ALIMENTARY SYSTEM

Esophagus	(17)	(14)	(32)	(32)	(32)	(37)
Intestine Large, Cecum	(0)	(0)	(1)	(1)	(1)	(0)
Adenoma					1 (100%)	
Lymphoma Malignant						
Intestine Large, Colon	(15)	(11)	(21)	(26)	(24)	(33)
Adenocarcinoma	1 (7%)		1 (5%)			
Adenoma			1 (5%)			
Leukemia Granulocytic						
Lymphoma Malignant	1 (7%)					1 (3%)
Intestine Large, Rectum	(0)	(0)	(0)	(0)	(0)	(0)
Leiomyosarcoma						
Intestine Small, Duodenum	(0)	(0)	(0)	(1)	(0)	(0)
Adenocarcinoma				1 (100%)		
Adenoma						
Intestine Small, Ileum	(14)	(10)	(20)	(22)	(24)	(31)
Leukemia Granulocytic						
Lymphoma Malignant	1 (7%)					
Intestine Small, Jejunum	(1)	(0)	(1)	(3)	(1)	(1)
Adenocarcinoma			1 (100%)	2 (67%)		1 (100%)
Adenoma				1 (33%)		
Liver	(26)	(25)	(50)	(48)	(48)	(50)
Fibrosarcoma, Metastatic, Skin						

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Hemangiosarcoma						
Hepatocellular Adenoma		1 (4%)	1 (2%)	1 (2%)	2 (4%)	2 (4%)
Hepatocellular Adenoma, Multiple						
Hepatocellular Carcinoma		1 (4%)		1 (2%)	1 (2%)	2 (4%)
Histiocytic Sarcoma						
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear			1 (2%)		2 (4%)	
Lipoma						
Lymphoma Malignant	2 (8%)	1 (4%)	1 (2%)		1 (2%)	3 (6%)
Sarcoma, Metastatic, Uncertain Primary Site						
Mesentery	(1)	(1)	(1)	(2)	(3)	(1)
Leukemia Mononuclear					1 (33%)	
Liposarcoma, Metastatic, Kidney				1 (50%)		
Lymphoma Malignant						1 (100%)
Oral Mucosa	(0)	(0)	(1)	(0)	(1)	(0)
Fibrosarcoma						
Squamous Cell Carcinoma					1 (100%)	
Squamous Cell Papilloma			1 (100%)			
Pancreas	(26)	(25)	(47)	(46)	(47)	(49)
Fibroma						
Histiocytic Sarcoma						
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear					1 (2%)	
Liposarcoma, Metastatic, Kidney				1 (2%)		
Lymphoma Malignant	2 (8%)	1 (4%)	1 (2%)		1 (2%)	3 (6%)
Sarcoma, Metastatic, Spleen	1 (4%)					
Acinar Cell, Adenoma	1 (4%)	1 (4%)	1 (2%)	1 (2%)		
Salivary Glands	(0)	(0)	(0)	(0)	(0)	(1)
Stomach, Forestomach	(17)	(15)	(31)	(33)	(34)	(37)
Lymphoma Malignant	1 (6%)					1 (3%)
Squamous Cell Carcinoma	1 (6%)					
Squamous Cell Papilloma			1 (3%)	1 (3%)		
Stomach, Glandular	(16)	(12)	(30)	(29)	(27)	(35)
Adenoma				1 (3%)		
Leukemia Mononuclear					1 (4%)	
Lymphoma Malignant						2 (6%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Schwannoma Malignant						1 (3%)
Squamous Cell Papilloma						
Tongue	(0)	(0)	(0)	(0)	(0)	(1)
Squamous Cell Papilloma						
CARDIOVASCULAR SYSTEM						
Blood Vessel	(26)	(26)	(50)	(48)	(48)	(50)
Histiocytic Sarcoma						
Leukemia Granulocytic				1 (2%)	1 (2%)	
Lymphoma Malignant	1 (4%)					
Mesothelioma Malignant				1 (2%)		
Heart	(26)	(26)	(50)	(48)	(48)	(50)
Histiocytic Sarcoma						
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear			1 (2%)		1 (2%)	
Lymphoma Malignant	1 (4%)	1 (4%)	1 (2%)		1 (2%)	2 (4%)
Mesothelioma Malignant				1 (2%)		
Schwannoma Malignant				1 (2%)		
Atrium, Mesothelioma Malignant						
ENDOCRINE SYSTEM						
Adrenal Cortex	(26)	(26)	(47)	(47)	(48)	(49)
Adenoma	1 (4%)			2 (4%)	1 (2%)	
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear			1 (2%)		1 (2%)	
Lymphoma Malignant	2 (8%)	1 (4%)	1 (2%)		1 (2%)	1 (2%)
Sarcoma, Metastatic, Uncertain Primary Site						
Adrenal Medulla	(26)	(26)	(47)	(46)	(48)	(49)
Leukemia Granulocytic					1 (2%)	
Lymphoma Malignant						
Pheochromocytoma Benign	1 (4%)		4 (9%)	2 (4%)	5 (10%)	5 (10%)
Pheochromocytoma Malignant			1 (2%)	1 (2%)		
Bilateral, Pheochromocytoma Benign	1 (4%)	1 (4%)		1 (2%)	1 (2%)	

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Bilateral, Pheochromocytoma Malignant						
Islets, Pancreatic	(26)	(26)	(48)	(47)	(48)	(48)
Adenoma			4 (8%)	4 (9%)	2 (4%)	4 (8%)
Carcinoma				1 (2%)	2 (4%)	
Histiocytic Sarcoma						
Leukemia Granulocytic					1 (2%)	
Lymphoma Malignant						
Sarcoma, Metastatic, Uncertain Primary Site						
Parathyroid Gland	(25)	(25)	(49)	(46)	(46)	(49)
Adenoma		1 (4%)	1 (2%)			
Leukemia Granulocytic				1 (2%)		
Lymphoma Malignant	1 (4%)					
Pituitary Gland	(26)	(26)	(46)	(48)	(48)	(49)
Craniopharyngioma						
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear			1 (2%)		1 (2%)	
Lymphoma Malignant	2 (8%)	1 (4%)			1 (2%)	2 (4%)
Pars Distalis, Adenoma	12 (46%)	6 (23%)	29 (63%)	22 (46%)	19 (40%)	19 (39%)
Pars Distalis, Carcinoma					1 (2%)	
Pars Intermedia, Adenoma				1 (2%)		
Thyroid Gland	(25)	(25)	(43)	(45)	(44)	(45)
Leukemia Granulocytic				1 (2%)		
Lymphoma Malignant	1 (4%)	1 (4%)				2 (4%)
C-cell, Adenoma				1 (2%)		
C-cell, Carcinoma			1 (2%)			
Follicular Cell, Adenoma	1 (4%)			1 (2%)		
Follicular Cell, Carcinoma						
GENERAL BODY SYSTEM						
Peritoneum	(0)	(0)	(0)	(0)	(0)	(0)
Paraganglioma						
Tissue NOS	(0)	(1)	(0)	(1)	(0)	(1)
Leukemia Mononuclear						
Mesothelioma Malignant				1 (100%)		

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Experiment Number: 10034 - 04

Test Type: CHRONIC

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Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

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Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Sarcoma						1 (100%)
Sarcoma, Metastatic, Uncertain Primary Site						
GENITAL SYSTEM						
Bulbourethral Gland	(0)	(0)	(0)	(1)	(0)	(0)
Coagulating Gland	(26)	(25)	(45)	(45)	(44)	(50)
Histiocytic Sarcoma						
Leukemia Granulocytic				1 (2%)		
Leukemia Mononuclear						
Sarcoma, Metastatic, Uncertain Primary Site						
Ductus Deferens	(0)	(1)	(0)	(0)	(0)	(0)
Epididymis	(26)	(26)	(49)	(48)	(48)	(50)
Histiocytic Sarcoma						
Leukemia Granulocytic				1 (2%)		
Lymphoma Malignant		1 (4%)				3 (6%)
Mesothelioma Malignant						
Sarcoma, Metastatic, Uncertain Primary Site						
Fat Pad, Epididymal	(0)	(0)	(0)	(0)	(0)	(4)
Leukemia Granulocytic						
Lipoma						
Sarcoma, Metastatic, Uncertain Primary Site						
Preputial Gland	(4)	(6)	(14)	(16)	(17)	(19)
Adenoma		1 (17%)			1 (6%)	
Carcinoma	4 (100%)	1 (17%)	6 (43%)	3 (19%)	4 (24%)	6 (32%)
Carcinosarcoma						
Lymphoma Malignant						
Squamous Cell Carcinoma						
Squamous Cell Papilloma				1 (6%)		1 (5%)
Bilateral, Carcinoma				2 (13%)		
Prostate, Dorsal/lateral Lobe	(26)	(25)	(46)	(48)	(48)	(50)
Adenocarcinoma					1 (2%)	
Adenoma						
Histiocytic Sarcoma						
Leukemia Granulocytic				1 (2%)	1 (2%)	

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Experiment Number: 10034 - 04

Test Type: CHRONIC

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Leukemia Mononuclear					1 (2%)	
Lymphoma Malignant	1 (4%)	1 (4%)				3 (6%)
Sarcoma, Metastatic, Uncertain Primary Site						
Prostate, Ventral Lobe	(26)	(26)	(48)	(47)	(47)	(50)
Adenoma	1 (4%)	2 (8%)	3 (6%)	2 (4%)	3 (6%)	1 (2%)
Adenoma, Multiple	1 (4%)		1 (2%)	2 (4%)	1 (2%)	1 (2%)
Histiocytic Sarcoma						
Leukemia Granulocytic				1 (2%)		
Leukemia Mononuclear						
Lymphoma Malignant	1 (4%)	1 (4%)				1 (2%)
Sarcoma, Metastatic, Uncertain Primary Site						
Seminal Vesicle	(25)	(23)	(39)	(43)	(41)	(47)
Adenoma						
Carcinosarcoma						
Histiocytic Sarcoma						
Leukemia Granulocytic				1 (2%)		
Sarcoma, Metastatic, Uncertain Primary Site						
Testes	(26)	(26)	(49)	(48)	(48)	(50)
Histiocytic Sarcoma						
Mesothelioma Malignant						
Sarcoma, Metastatic, Uncertain Primary Site						
Seminoma Benign				1 (2%)		
Seminoma Malignant						
Interstitial Cell, Adenoma	1 (4%)		1 (2%)		1 (2%)	
HEMATOPOIETIC SYSTEM						
Bone Marrow	(26)	(25)	(47)	(47)	(46)	(50)
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear			1 (2%)		2 (4%)	
Lymphoma Malignant	2 (8%)	1 (4%)	1 (2%)			3 (6%)
Osteosarcoma, Metastatic, Bone, Femur						
Lymph Node	(7)	(6)	(16)	(17)	(15)	(15)
Axillary, Leukemia Granulocytic					1 (7%)	
Axillary, Lymphoma Malignant		1 (17%)				2 (13%)

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

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2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Brachial, Leukemia Granulocytic				1 (6%)		
Brachial, Lymphoma Malignant		1 (17%)				1 (7%)
Cervical, Leukemia Granulocytic				1 (6%)		
Cervical, Lymphoma Malignant		1 (17%)				1 (7%)
Inguinal, Leukemia Granulocytic				1 (6%)		
Inguinal, Lymphoma Malignant						1 (7%)
Lumbar, Carcinoma, Metastatic, Preputial Gland					1 (7%)	
Lumbar, Leukemia Granulocytic				1 (6%)	1 (7%)	
Lumbar, Lymphoma Malignant	2 (29%)	1 (17%)	1 (6%)		1 (7%)	2 (13%)
Lumbar, Sarcoma, Metastatic, Skin						
Mediastinal, Histiocytic Sarcoma						
Mediastinal, Leukemia Granulocytic				1 (6%)	1 (7%)	
Mediastinal, Lymphoma Malignant	1 (14%)	1 (17%)	1 (6%)		1 (7%)	2 (13%)
Pancreatic, Leukemia Granulocytic					1 (7%)	
Pancreatic, Lymphoma Malignant	2 (29%)	1 (17%)	1 (6%)		1 (7%)	3 (20%)
Popliteal, Lymphoma Malignant						1 (7%)
Renal, Hemangioma						
Renal, Leukemia Granulocytic				1 (6%)	1 (7%)	
Renal, Leukemia Mononuclear			1 (6%)			
Renal, Lymphoma Malignant	2 (29%)	1 (17%)	1 (6%)			2 (13%)
Lymph Node, Mandibular	(6)	(7)	(8)	(8)	(14)	(9)
Leukemia Granulocytic				1 (13%)	1 (7%)	
Leukemia Mononuclear			1 (13%)		1 (7%)	
Lymphoma Malignant	2 (33%)	1 (14%)	1 (13%)			3 (33%)
Squamous Cell Carcinoma, Metastatic, Skin			1 (13%)		1 (7%)	
Lymph Node, Mesenteric	(0)	(1)	(1)	(2)	(1)	(2)
Leukemia Granulocytic				1 (50%)	1 (100%)	
Lymphoma Malignant		1 (100%)	1 (100%)			1 (50%)
Spleen	(26)	(25)	(47)	(47)	(47)	(49)
Hemangiosarcoma						
Histiocytic Sarcoma						
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear			1 (2%)		2 (4%)	
Liposarcoma				1 (2%)		
Lymphoma Malignant	2 (8%)	1 (4%)	1 (2%)		1 (2%)	3 (6%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Sarcoma	2 (8%)			1 (2%)	1 (2%)	
Sarcoma, Metastatic, Uncertain Primary Site						
Thymus	(24)	(25)	(48)	(48)	(46)	(47)
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear					1 (2%)	
Lymphoma Malignant	2 (8%)	1 (4%)	1 (2%)		1 (2%)	3 (6%)
Mesothelioma Malignant				1 (2%)		
INTEGUMENTARY SYSTEM						
Mammary Gland	(25)	(25)	(49)	(48)	(47)	(50)
Adenocarcinoma		1 (4%)				
Adenocarcinoma, Multiple						
Adenoma						
Fibroadenoma			1 (2%)	1 (2%)	1 (2%)	1 (2%)
Fibroadenoma, Multiple						
Fibroma		2 (8%)	1 (2%)			1 (2%)
Fibroma, Multiple						
Histiocytic Sarcoma		1 (4%)				
Leukemia Granulocytic				1 (2%)	1 (2%)	
Lipoma		1 (4%)				
Lymphoma Malignant		1 (4%)				
Skin	(6)	(7)	(21)	(18)	(24)	(15)
Basal Cell Adenoma		1 (14%)	1 (5%)	1 (6%)	1 (4%)	
Basal Cell Carcinoma		1 (14%)				1 (7%)
Fibroma			1 (5%)			
Keratoacanthoma					1 (4%)	
Pilomatrixoma						
Squamous Cell Carcinoma			2 (10%)		1 (4%)	
Squamous Cell Papilloma		1 (14%)	3 (14%)		4 (17%)	1 (7%)
Sebaceous Gland, Adenoma				1 (6%)		
Subcutaneous Tissue, Fibroma			1 (5%)	5 (28%)	2 (8%)	
Subcutaneous Tissue, Fibrosarcoma			1 (5%)			1 (7%)
Subcutaneous Tissue, Histiocytic Sarcoma		1 (14%)				1 (7%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Subcutaneous Tissue, Histiocytic Sarcoma, Metastatic, Liver						
Subcutaneous Tissue, Lipoma		2 (29%)	2 (10%)		2 (8%)	
Subcutaneous Tissue, Myxosarcoma						
Subcutaneous Tissue, Sarcoma						
Subcutaneous Tissue, Schwannoma Malignant			1 (5%)		1 (4%)	2 (13%)

MUSCULOSKELETAL SYSTEM

Bone	(1)	(1)	(3)	(0)	(1)	(1)
Cranium, Lymphoma Malignant	1 (100%)					
Cranium, Osteosarcoma						
Mandible, Squamous Cell Carcinoma, Deep Invasion			1 (33%)			
Rib, Osteosarcoma						
Tibia, Osteosarcoma						
Vertebra, Chordoma						
Vertebra, Lymphoma Malignant	1 (100%)					
Bone, Femur	(26)	(26)	(50)	(48)	(48)	(50)
Osteosarcoma						
Skeletal Muscle	(2)	(0)	(1)	(1)	(1)	(2)
Lymphoma Malignant	1 (50%)					
Mesothelioma Malignant				1 (100%)		

NERVOUS SYSTEM

Brain, Brain Stem	(26)	(26)	(50)	(48)	(47)	(50)
Carcinoma, Deep Invasion					1 (2%)	
Granular Cell Tumor Benign						
Granular Cell Tumor Malignant					1 (2%)	1 (2%)
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear						
Lymphoma Malignant	1 (4%)					
Brain, Cerebellum	(26)	(26)	(49)	(48)	(48)	(50)
Granular Cell Tumor Malignant		1 (4%)	1 (2%)			

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear					1 (2%)	
Lymphoma Malignant						
Brain, Cerebrum	(26)	(26)	(49)	(48)	(48)	(50)
Granular Cell Tumor Benign				1 (2%)		1 (2%)
Granular Cell Tumor Malignant	1 (4%)				1 (2%)	1 (2%)
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear			1 (2%)		1 (2%)	
Lymphoma Malignant	1 (4%)	1 (4%)				1 (2%)
Meningioma Benign		1 (4%)				
Oligodendroglioma Malignant						
Sarcoma						
Nerve Trigeminal	(4)	(3)	(2)	(0)	(2)	(6)
Lymphoma Malignant						
Peripheral Nerve, Sciatic	(4)	(3)	(2)	(0)	(2)	(6)
Histiocytic Sarcoma						
Peripheral Nerve, Tibial	(4)	(3)	(2)	(0)	(2)	(6)
Histiocytic Sarcoma						
Spinal Cord, Cervical	(4)	(3)	(2)	(0)	(2)	(6)
Spinal Cord, Lumbar	(4)	(3)	(2)	(0)	(2)	(6)
Lymphoma Malignant						
Spinal Cord, Thoracic	(4)	(3)	(2)	(0)	(2)	(6)
RESPIRATORY SYSTEM						
Lung	(19)	(13)	(36)	(33)	(39)	(40)
Alveolar/Bronchiolar Adenoma						
Alveolar/Bronchiolar Carcinoma						
Carcinoma, Metastatic, Zymbal'S Gland	1 (5%)					
Chordoma, Metastatic, Bone						
Histiocytic Sarcoma						
Leukemia Granulocytic				1 (3%)	1 (3%)	
Leukemia Mononuclear			1 (3%)		1 (3%)	
Lymphoma Malignant	2 (11%)	1 (8%)	1 (3%)		1 (3%)	3 (8%)
Mesothelioma Malignant				1 (3%)		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

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Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Neural Crest Tumor, Malignant, Metastatic, Ear						1 (3%)
Osteosarcoma, Metastatic, Bone, Femur						
Sarcoma						
Sarcoma, Metastatic, Tissue Nos						
Sarcoma, Metastatic, Uncertain Primary Site						
Nose	(17)	(12)	(30)	(32)	(31)	(37)
Adenoma						
Leukemia Granulocytic				1 (3%)	1 (3%)	
Leukemia Mononuclear					1 (3%)	
Lymphoma Malignant	2 (12%)	1 (8%)			1 (3%)	3 (8%)
Sarcoma, Metastatic, Brain, Cerebrum						
Squamous Cell Carcinoma					2 (6%)	
Trachea	(17)	(12)	(27)	(26)	(27)	(32)
Lymphoma Malignant		1 (8%)				2 (6%)

SPECIAL SENSES SYSTEM

Ear	(1)	(0)	(0)	(0)	(0)	(1)
Neural Crest Tumor, Benign	1 (100%)					
Neural Crest Tumor, Malignant						1 (100%)
Eye	(3)	(2)	(2)	(1)	(2)	(1)
Lymphoma Malignant		1 (50%)				
Lacrimal Gland	(0)	(0)	(0)	(1)	(0)	(0)
Zymbal's Gland	(1)	(1)	(0)	(2)	(1)	(1)
Adenoma					1 (100%)	1 (100%)
Carcinoma	1 (100%)	1 (100%)		1 (50%)		

URINARY SYSTEM

Kidney	(26)	(26)	(50)	(48)	(48)	(50)
Adenoma, Tubular			1 (2%)			
Histiocytic Sarcoma						
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear			1 (2%)		1 (2%)	
Lipoma				1 (2%)		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Liposarcoma	1 (4%)			2 (4%)	1 (2%)	1 (2%)
Lymphoma Malignant	2 (8%)	1 (4%)	1 (2%)		1 (2%)	3 (6%)
Mesenchymal Tumor Malignant				1 (2%)		
Oncocytoma Benign						
Sarcoma, Metastatic, Spleen						
Urinary Bladder	(1)	(0)	(6)	(1)	(4)	(4)
Transitional Epithelium, Carcinoma						
Transitional Epithelium, Papilloma						

SYSTEMIC LESIONS

Multiple Organ	*(26)	*(26)	*(50)	*(48)	*(48)	*(50)
Histiocytic Sarcoma		1 (4%)				1 (2%)
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear			1 (2%)		2 (4%)	
Lymphoma Malignant	2 (8%)	1 (4%)	1 (2%)		1 (2%)	3 (6%)
Mesothelioma Malignant				1 (2%)		

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

Sprague Dawley (NCTR)	F1 2500.StDose M	F1 25000StDose M
RATS MALE		

Disposition Summary

Animals Initially In Study	50	46
Early Deaths		
Moribund Sacrifice	17	26
Natural Death	7	6
Survivors		
Moribund Sacrifice	10	3
Natural Death	1	2
Terminal Sacrifice	15	9
Animals Examined Microscopically	50	46

ALIMENTARY SYSTEM

Esophagus	(35)	(36)
Intestine Large, Cecum	(1)	(0)
Adenoma		
Lymphoma Malignant	1 (100%)	
Intestine Large, Colon	(29)	(31)
Adenocarcinoma		
Adenoma		
Leukemia Granulocytic		
Lymphoma Malignant	2 (7%)	2 (6%)
Intestine Large, Rectum	(0)	(0)
Leiomyosarcoma		
Intestine Small, Duodenum	(0)	(1)
Adenocarcinoma		
Adenoma		1 (100%)
Intestine Small, Ileum	(26)	(30)
Leukemia Granulocytic		
Lymphoma Malignant	1 (4%)	1 (3%)
Intestine Small, Jejunum	(0)	(2)
Adenocarcinoma		
Adenoma		
Liver	(50)	(46)
Fibrosarcoma, Metastatic, Skin		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Hemangiosarcoma		
Hepatocellular Adenoma	1 (2%)	
Hepatocellular Adenoma, Multiple		
Hepatocellular Carcinoma		1 (2%)
Histiocytic Sarcoma		
Leukemia Granulocytic		1 (2%)
Leukemia Mononuclear		
Lipoma		
Lymphoma Malignant	2 (4%)	5 (11%)
Sarcoma, Metastatic, Uncertain Primary Site		
Mesentery	(1)	(2)
Leukemia Mononuclear		
Liposarcoma, Metastatic, Kidney		
Lymphoma Malignant		
Oral Mucosa	(1)	(0)
Fibrosarcoma		
Squamous Cell Carcinoma	1 (100%)	
Squamous Cell Papilloma		
Pancreas	(50)	(44)
Fibroma		
Histiocytic Sarcoma		
Leukemia Granulocytic		1 (2%)
Leukemia Mononuclear		
Liposarcoma, Metastatic, Kidney		
Lymphoma Malignant	2 (4%)	2 (5%)
Sarcoma, Metastatic, Spleen		
Acinar Cell, Adenoma	1 (2%)	1 (2%)
Salivary Glands	(0)	(0)
Stomach, Forestomach	(34)	(37)
Lymphoma Malignant		
Squamous Cell Carcinoma		
Squamous Cell Papilloma		
Stomach, Glandular	(33)	(36)
Adenoma		
Leukemia Mononuclear		
Lymphoma Malignant		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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Schwannoma Malignant		
Squamous Cell Papilloma		
Tongue	(0)	(0)
Squamous Cell Papilloma		

CARDIOVASCULAR SYSTEM

Blood Vessel	(50)	(46)
Histiocytic Sarcoma		
Leukemia Granulocytic		
Lymphoma Malignant		
Mesothelioma Malignant		
Heart	(50)	(46)
Histiocytic Sarcoma		
Leukemia Granulocytic		1 (2%)
Leukemia Mononuclear		
Lymphoma Malignant	2 (4%)	3 (7%)
Mesothelioma Malignant		
Schwannoma Malignant	1 (2%)	
Atrium, Mesothelioma Malignant		1 (2%)

ENDOCRINE SYSTEM

Adrenal Cortex	(50)	(44)
Adenoma	1 (2%)	
Leukemia Granulocytic		1 (2%)
Leukemia Mononuclear		
Lymphoma Malignant	2 (4%)	3 (7%)
Sarcoma, Metastatic, Uncertain Primary Site		
Adrenal Medulla	(50)	(44)
Leukemia Granulocytic		
Lymphoma Malignant		
Pheochromocytoma Benign		4 (9%)
Pheochromocytoma Malignant		
Bilateral, Pheochromocytoma Benign		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Bilateral, Pheochromocytoma Malignant		
Islets, Pancreatic	(50)	(44)
Adenoma	1 (2%)	4 (9%)
Carcinoma	2 (4%)	
Histiocytic Sarcoma		
Leukemia Granulocytic		
Lymphoma Malignant	2 (4%)	
Sarcoma, Metastatic, Uncertain Primary Site		
Parathyroid Gland	(50)	(43)
Adenoma		
Leukemia Granulocytic		
Lymphoma Malignant	2 (4%)	
Pituitary Gland	(50)	(43)
Craniopharyngioma		1 (2%)
Leukemia Granulocytic		1 (2%)
Leukemia Mononuclear		
Lymphoma Malignant	2 (4%)	2 (5%)
Pars Distalis, Adenoma	19 (38%)	17 (40%)
Pars Distalis, Carcinoma		
Pars Intermedia, Adenoma		
Thyroid Gland	(48)	(42)
Leukemia Granulocytic		
Lymphoma Malignant	2 (4%)	1 (2%)
C-cell, Adenoma	1 (2%)	3 (7%)
C-cell, Carcinoma	1 (2%)	
Follicular Cell, Adenoma	1 (2%)	
Follicular Cell, Carcinoma		

GENERAL BODY SYSTEM

Peritoneum	(0)	(0)
Paraganglioma		
Tissue NOS	(0)	(1)
Leukemia Mononuclear		
Mesothelioma Malignant		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Sarcoma		1 (100%)
Sarcoma, Metastatic, Uncertain Primary Site		

GENITAL SYSTEM

Bulbourethral Gland	(0)	(0)
Coagulating Gland	(48)	(44)
Histiocytic Sarcoma		
Leukemia Granulocytic		
Leukemia Mononuclear		
Sarcoma, Metastatic, Uncertain Primary Site		
Ductus Deferens	(0)	(0)
Epididymis	(50)	(46)
Histiocytic Sarcoma		
Leukemia Granulocytic		
Lymphoma Malignant	2 (4%)	1 (2%)
Mesothelioma Malignant		
Sarcoma, Metastatic, Uncertain Primary Site		
Fat Pad, Epididymal	(0)	(0)
Leukemia Granulocytic		
Lipoma		
Sarcoma, Metastatic, Uncertain Primary Site		
Preputial Gland	(15)	(12)
Adenoma		2 (17%)
Carcinoma	4 (27%)	3 (25%)
Carcinosarcoma		1 (8%)
Lymphoma Malignant	1 (7%)	
Squamous Cell Carcinoma		1 (8%)
Squamous Cell Papilloma		
Bilateral, Carcinoma	1 (7%)	1 (8%)
Prostate, Dorsal/lateral Lobe	(49)	(45)
Adenocarcinoma		
Adenoma		
Histiocytic Sarcoma		
Leukemia Granulocytic		1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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Leukemia Mononuclear		
Lymphoma Malignant	2 (4%)	4 (9%)
Sarcoma, Metastatic, Uncertain Primary Site		
Prostate, Ventral Lobe	(49)	(45)
Adenoma	2 (4%)	4 (9%)
Adenoma, Multiple	2 (4%)	2 (4%)
Histiocytic Sarcoma		
Leukemia Granulocytic		
Leukemia Mononuclear		
Lymphoma Malignant	1 (2%)	1 (2%)
Sarcoma, Metastatic, Uncertain Primary Site		
Seminal Vesicle	(48)	(42)
Adenoma		
Carcinosarcoma	1 (2%)	
Histiocytic Sarcoma		
Leukemia Granulocytic		
Sarcoma, Metastatic, Uncertain Primary Site		
Testes	(49)	(45)
Histiocytic Sarcoma		
Mesothelioma Malignant		
Sarcoma, Metastatic, Uncertain Primary Site		
Seminoma Benign		
Seminoma Malignant	1 (2%)	
Interstitial Cell, Adenoma	1 (2%)	1 (2%)

HEMATOPOIETIC SYSTEM

Bone Marrow	(49)	(45)
Leukemia Granulocytic		1 (2%)
Leukemia Mononuclear		
Lymphoma Malignant	2 (4%)	5 (11%)
Osteosarcoma, Metastatic, Bone, Femur		1 (2%)
Lymph Node	(27)	(16)
Axillary, Leukemia Granulocytic		
Axillary, Lymphoma Malignant	2 (7%)	2 (13%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Brachial, Leukemia Granulocytic		
Brachial, Lymphoma Malignant	1 (4%)	1 (6%)
Cervical, Leukemia Granulocytic		1 (6%)
Cervical, Lymphoma Malignant	2 (7%)	
Inguinal, Leukemia Granulocytic		
Inguinal, Lymphoma Malignant	1 (4%)	2 (13%)
Lumbar, Carcinoma, Metastatic, Preputial Gland		
Lumbar, Leukemia Granulocytic		1 (6%)
Lumbar, Lymphoma Malignant	2 (7%)	2 (13%)
Lumbar, Sarcoma, Metastatic, Skin		
Mediastinal, Histiocytic Sarcoma		
Mediastinal, Leukemia Granulocytic		1 (6%)
Mediastinal, Lymphoma Malignant	2 (7%)	3 (19%)
Pancreatic, Leukemia Granulocytic		1 (6%)
Pancreatic, Lymphoma Malignant	2 (7%)	5 (31%)
Popliteal, Lymphoma Malignant	1 (4%)	
Renal, Hemangioma		
Renal, Leukemia Granulocytic		1 (6%)
Renal, Leukemia Mononuclear		
Renal, Lymphoma Malignant	1 (4%)	3 (19%)
Lymph Node, Mandibular Leukemia Granulocytic	(13)	(15) 1 (7%)
Leukemia Mononuclear		
Lymphoma Malignant	2 (15%)	4 (27%)
Squamous Cell Carcinoma, Metastatic, Skin		
Lymph Node, Mesenteric Leukemia Granulocytic	(2)	(3)
Lymphoma Malignant	2 (100%)	3 (100%)
Spleen	(49)	(45)
Hemangiosarcoma		
Histiocytic Sarcoma	1 (2%)	
Leukemia Granulocytic		1 (2%)
Leukemia Mononuclear		
Liposarcoma		
Lymphoma Malignant	2 (4%)	5 (11%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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Sarcoma		
Sarcoma, Metastatic, Uncertain Primary Site		
Thymus	(48)	(42)
Leukemia Granulocytic		1 (2%)
Leukemia Mononuclear		
Lymphoma Malignant	2 (4%)	3 (7%)
Mesothelioma Malignant		

INTEGUMENTARY SYSTEM

Mammary Gland	(49)	(45)
Adenocarcinoma		
Adenocarcinoma, Multiple		
Adenoma	1 (2%)	
Fibroadenoma	3 (6%)	1 (2%)
Fibroadenoma, Multiple		
Fibroma		1 (2%)
Fibroma, Multiple		
Histiocytic Sarcoma		
Leukemia Granulocytic		
Lipoma		
Lymphoma Malignant	1 (2%)	1 (2%)
Skin	(17)	(16)
Basal Cell Adenoma	1 (6%)	
Basal Cell Carcinoma		
Fibroma		1 (6%)
Keratoacanthoma		
Pilomatrixoma		
Squamous Cell Carcinoma	1 (6%)	
Squamous Cell Papilloma	4 (24%)	1 (6%)
Sebaceous Gland, Adenoma		
Subcutaneous Tissue, Fibroma	3 (18%)	
Subcutaneous Tissue, Fibrosarcoma		
Subcutaneous Tissue, Histiocytic Sarcoma		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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Subcutaneous Tissue, Histiocytic Sarcoma,
 Metastatic, Liver
 Subcutaneous Tissue, Lipoma
 Subcutaneous Tissue, Myxosarcoma
 Subcutaneous Tissue, Sarcoma
 Subcutaneous Tissue, Schwannoma Malignant

	1 (6%)	1 (6%)
	1 (6%)	1 (6%)

MUSCULOSKELETAL SYSTEM

Bone
 Cranium, Lymphoma Malignant
 Cranium, Osteosarcoma
 Mandible, Squamous Cell Carcinoma, Deep
 Invasion
 Rib, Osteosarcoma
 Tibia, Osteosarcoma
 Vertebra, Chordoma
 Vertebra, Lymphoma Malignant
 Bone, Femur
 Osteosarcoma
 Skeletal Muscle
 Lymphoma Malignant
 Mesothelioma Malignant

	(2)	(1)
	1 (50%)	
	(50)	(46)
		1 (2%)
	(2)	(3)

NERVOUS SYSTEM

Brain, Brain Stem
 Carcinoma, Deep Invasion
 Granular Cell Tumor Benign
 Granular Cell Tumor Malignant
 Leukemia Granulocytic
 Leukemia Mononuclear
 Lymphoma Malignant
 Brain, Cerebellum
 Granular Cell Tumor Malignant

	(50)	(46)
	1 (2%)	2 (4%)
	(50)	(46)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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Leukemia Granulocytic		
Leukemia Mononuclear		
Lymphoma Malignant	2 (4%)	2 (4%)
Brain, Cerebrum	(50)	(46)
Granular Cell Tumor Benign		
Granular Cell Tumor Malignant		
Leukemia Granulocytic		
Leukemia Mononuclear		
Lymphoma Malignant	2 (4%)	3 (7%)
Meningioma Benign	1 (2%)	
Oligodendroglioma Malignant		1 (2%)
Sarcoma		1 (2%)
Nerve Trigeminal	(8)	(3)
Lymphoma Malignant		1 (33%)
Peripheral Nerve, Sciatic	(8)	(3)
Histiocytic Sarcoma		
Peripheral Nerve, Tibial	(8)	(3)
Histiocytic Sarcoma		
Spinal Cord, Cervical	(8)	(3)
Spinal Cord, Lumbar	(8)	(3)
Lymphoma Malignant		1 (33%)
Spinal Cord, Thoracic	(8)	(3)

RESPIRATORY SYSTEM

Lung	(41)	(38)
Alveolar/Bronchiolar Adenoma		
Alveolar/Bronchiolar Carcinoma		
Carcinoma, Metastatic, Zymbal'S Gland		
Chordoma, Metastatic, Bone		
Histiocytic Sarcoma		
Leukemia Granulocytic		1 (3%)
Leukemia Mononuclear		
Lymphoma Malignant	2 (5%)	4 (11%)
Mesothelioma Malignant		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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Neural Crest Tumor, Malignant, Metastatic, Ear		
Osteosarcoma, Metastatic, Bone, Femur		1 (3%)
Sarcoma		1 (3%)
Sarcoma, Metastatic, Tissue Nos		1 (3%)
Sarcoma, Metastatic, Uncertain Primary Site		
Nose	(34)	(37)
Adenoma		1 (3%)
Leukemia Granulocytic		1 (3%)
Leukemia Mononuclear		
Lymphoma Malignant	2 (6%)	3 (8%)
Sarcoma, Metastatic, Brain, Cerebrum		1 (3%)
Squamous Cell Carcinoma	1 (3%)	
Trachea	(33)	(33)
Lymphoma Malignant		

SPECIAL SENSES SYSTEM

Ear	(0)	(0)
Neural Crest Tumor, Benign		
Neural Crest Tumor, Malignant		
Eye	(1)	(1)
Lymphoma Malignant		
Lacrimal Gland	(0)	(0)
Zymbal's Gland	(0)	(1)
Adenoma		
Carcinoma		

URINARY SYSTEM

Kidney	(50)	(45)
Adenoma, Tubular		
Histiocytic Sarcoma		
Leukemia Granulocytic		1 (2%)
Leukemia Mononuclear		
Lipoma	1 (2%)	

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
Bisphenol A
CAS Number: 80-05-7
2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Liposarcoma		
Lymphoma Malignant	2 (4%)	5 (11%)
Mesenchymal Tumor Malignant		
Oncocytoma Benign		
Sarcoma, Metastatic, Spleen		
Urinary Bladder	(3)	(4)
Transitional Epithelium, Carcinoma		
Transitional Epithelium, Papilloma		

SYSTEMIC LESIONS

Multiple Organ	*(50)	*(46)
Histiocytic Sarcoma	1 (2%)	
Leukemia Granulocytic		1 (2%)
Leukemia Mononuclear		
Lymphoma Malignant	2 (4%)	5 (11%)
Mesothelioma Malignant		1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR)
 RATS MALE

F1 Veh. Ctrl M F1 2.5 BPA M F1 25.0 BPA M F1 250.0BPA M F1 2500.BPA M F1 25000BPA M

Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	39	36	41	40	40	32
Total Primary Neoplasms	62	65	64	66	73	57
Total Animals with Benign Neoplasms	31	29	31	32	28	27
Total Benign Neoplasms	43	47	44	48	48	39
Total Animals with Malignant Neoplasms	16	14	18	15	23	15
Total Malignant Neoplasms	18	18	20	18	25	18
Total Animals with Metastatic Neoplasms		1		2	2	1
Total Metastatic Neoplasms		1		2	14	1
Total Animals with Malignant Neoplasms Uncertain Primary Site					1	
Total Animals with Neoplasms Uncertain- Benign or Malignant	1					
Total Uncertain Neoplasms	1					

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
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Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	19	16	41	39	37	38
Total Primary Neoplasms	34	29	77	75	72	61
 Total Animals with Benign Neoplasms	 13	 13	 39	 34	 27	 24
Total Benign Neoplasms	20	21	59	55	49	38
 Total Animals with Malignant Neoplasms	 11	 7	 15	 17	 17	 21
Total Malignant Neoplasms	14	8	18	20	23	23
 Total Animals with Metastatic Neoplasms	 2		 1	 1	 2	 1
Total Metastatic Neoplasms	2		1	2	2	1
 Total Animals with Malignant Neoplasms Uncertain Primary Site						
 Total Animals with Neoplasms Uncertain- Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
Bisphenol A
CAS Number: 80-05-7
2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	33	35
Total Primary Neoplasms	63	66
Total Animals with Benign Neoplasms	28	25
Total Benign Neoplasms	45	46
Total Animals with Malignant Neoplasms	16	20
Total Malignant Neoplasms	18	20
Total Animals with Metastatic Neoplasms		3
Total Metastatic Neoplasms		4
Total Animals with Malignant Neoplasms Uncertain Primary Site		
Total Animals with Neoplasms Uncertain- Benign or Malignant		
Total Uncertain Neoplasms		

*** END OF MALE ***

a - Number of animals examined microscopically at site and number of animals with lesion
b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 Veh. Ctrl F

F1 2.5 BPA F

F1 25.0 BPA F

F1 250.0BPA F

F1 2500.BPA F

F1 25000BPA F

Disposition Summary

	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Animals Initially In Study	50	48	46	49	50	46
Early Deaths						
Moribund Sacrifice	25	22	28	23	28	27
Natural Death	3	1	1	5	5	1
Survivors						
Moribund Sacrifice	3	6	3	8	5	8
Natural Death	3				2	2
Terminal Sacrifice	16	19	14	13	10	8
Animals Examined Microscopically	50	48	46	49	50	46

ALIMENTARY SYSTEM

Esophagus	(34)	(29)	(32)	(36)	(40)	(38)
Intestine Large, Cecum	(1)	(0)	(1)	(0)	(0)	(0)
Lymphoma Malignant	1 (100%)					
Intestine Large, Colon	(31)	(30)	(31)	(32)	(34)	(38)
Adenocarcinoma						
Adenocarcinoma, Metastatic, Uterus						1 (3%)
Lymphoma Malignant	1 (3%)					1 (3%)
Intestine Small, Duodenum	(0)	(0)	(0)	(0)	(0)	(0)
Intestine Small, Ileum	(29)	(29)	(31)	(32)	(32)	(37)
Adenocarcinoma, Metastatic, Uterus						1 (3%)
Leukemia Granulocytic	1 (3%)					
Lymphoma Malignant			1 (3%)			
Intestine Small, Jejunum	(3)	(0)	(2)	(1)	(1)	(0)
Adenocarcinoma			1 (50%)	1 (100%)		
Leiomyoma	1 (33%)					
Leiomyosarcoma	1 (33%)					
Lymphoma Malignant	1 (33%)					
Liver	(50)	(48)	(46)	(49)	(50)	(46)
Adenocarcinoma, Metastatic, Uterus						1 (2%)
Fibrosarcoma, Metastatic, Skin						
Hepatocellular Adenoma				1 (2%)	1 (2%)	
Histiocytic Sarcoma						1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Histiocytic Sarcoma, Metastatic, Skin						
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lymphoma Malignant	2 (4%)	1 (2%)	1 (2%)		2 (4%)	1 (2%)
Sarcoma, Metastatic, Spleen				1 (2%)		
Sarcoma, Metastatic, Uncertain Primary Site						
Yolk Sac Carcinoma, Metastatic, Ovary				1 (2%)		
Mesentery	(2)	(0)	(3)	(3)	(4)	(3)
Adenocarcinoma, Metastatic, Uterus						1 (33%)
Hemangiosarcoma						
Lymphoma Malignant						
Sarcoma, Metastatic, Uncertain Primary Site						
Yolk Sac Carcinoma, Metastatic, Ovary				1 (33%)		
Oral Mucosa	(0)	(0)	(0)	(0)	(0)	(0)
Squamous Cell Papilloma						
Pancreas	(50)	(48)	(46)	(49)	(49)	(46)
Adenocarcinoma, Metastatic, Uterus						1 (2%)
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lymphoma Malignant	2 (4%)	1 (2%)	1 (2%)		1 (2%)	
Yolk Sac Carcinoma, Metastatic, Ovary				1 (2%)		
Acinar Cell, Adenoma						
Stomach, Forestomach	(34)	(29)	(34)	(36)	(39)	(39)
Adenocarcinoma, Metastatic, Uterus						1 (3%)
Lymphoma Malignant						
Squamous Cell Carcinoma						
Squamous Cell Papilloma			1 (3%)			
Stomach, Glandular	(34)	(29)	(31)	(35)	(36)	(38)
Adenocarcinoma, Metastatic, Uterus						1 (3%)
Leukemia Granulocytic	1 (3%)					
Lymphoma Malignant						
Tongue	(0)	(0)	(0)	(0)	(0)	(0)

CARDIOVASCULAR SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

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2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Blood Vessel	(50)	(48)	(46)	(49)	(50)	(46)
Lymphoma Malignant						1 (2%)
Heart	(50)	(48)	(46)	(49)	(50)	(46)
Fibrosarcoma, Metastatic, Skin						
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lymphoma Malignant	2 (4%)	1 (2%)	1 (2%)		1 (2%)	1 (2%)
Schwannoma Benign	1 (2%)	1 (2%)				
Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site			1 (2%)			
ENDOCRINE SYSTEM						
Adrenal Cortex	(50)	(48)	(45)	(49)	(49)	(46)
Adenoma	1 (2%)	1 (2%)		3 (6%)		2 (4%)
Fibrosarcoma, Metastatic, Skin						
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lymphoma Malignant	2 (4%)		1 (2%)		2 (4%)	1 (2%)
Bilateral, Adenoma						
Adrenal Medulla	(50)	(48)	(46)	(49)	(49)	(46)
Lymphoma Malignant					1 (2%)	
Pheochromocytoma Benign		1 (2%)		1 (2%)		2 (4%)
Pheochromocytoma Malignant		1 (2%)			1 (2%)	
Islets, Pancreatic	(50)	(48)	(46)	(49)	(49)	(46)
Adenoma	2 (4%)	1 (2%)			2 (4%)	
Carcinoma			1 (2%)			
Lymphoma Malignant						
Parathyroid Gland	(50)	(48)	(45)	(47)	(50)	(45)
Adenoma			1 (2%)			
Carcinoma, Deep Invasion						
Leukemia Granulocytic	1 (2%)					
Lymphoma Malignant	1 (2%)		1 (2%)			
Pituitary Gland	(50)	(48)	(46)	(49)	(49)	(46)
Leukemia Granulocytic	1 (2%)					

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Leukemia Mononuclear						
Lymphoma Malignant	1 (2%)		1 (2%)		2 (4%)	1 (2%)
Pars Distalis, Adenoma	21 (42%)	22 (46%)	12 (26%)	20 (41%)	19 (39%)	21 (46%)
Pars Distalis, Carcinoma	1 (2%)	1 (2%)				
Pars Intermedia, Adenoma				1 (2%)		
Thyroid Gland	(50)	(48)	(46)	(49)	(50)	(46)
Leukemia Granulocytic	1 (2%)					
Lymphoma Malignant	1 (2%)		1 (2%)			
C-cell, Adenoma			1 (2%)			2 (4%)
C-cell, Carcinoma		1 (2%)				
Follicular Cell, Carcinoma	1 (2%)					

GENERAL BODY SYSTEM

Tissue NOS	(0)	(1)	(0)	(1)	(1)	(0)
Fibrosarcoma, Metastatic, Clitoral Gland		1 (100%)				
Fibrosarcoma, Metastatic, Skin						
Leiomyosarcoma					1 (100%)	
Lipoma						
Sarcoma						

GENITAL SYSTEM

Clitoral Gland	(7)	(7)	(6)	(7)	(8)	(13)
Adenoma						2 (15%)
Carcinoma	1 (14%)	1 (14%)	1 (17%)	1 (14%)	4 (50%)	1 (8%)
Fibrosarcoma		1 (14%)		1 (14%)		
Lymphoma Malignant			1 (17%)			
Squamous Cell Papilloma						
Fat Pad, Ovarian/parametrial	(1)	(0)	(0)	(1)	(1)	(1)
Adenocarcinoma, Metastatic, Uterus						1 (100%)
Ovary	(50)	(48)	(46)	(49)	(50)	(46)
Adenocarcinoma, Metastatic, Uterus						1 (2%)
Fibrosarcoma, Metastatic, Skin						
Granulosa Cell Tumor Benign	1 (2%)			1 (2%)		

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Experiment Number: 10034 - 04

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Granulosa Cell Tumor Malignant	1 (2%)					
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lymphoma Malignant	2 (4%)	1 (2%)	1 (2%)		2 (4%)	1 (2%)
Sarcoma, Metastatic, Uncertain Primary Site						
Sex Cord Stromal Tumor, Benign						
Thecoma Benign		1 (2%)				
Thecoma Malignant						
Tubulostromal Adenoma						
Yolk Sac Carcinoma				1 (2%)		
Oviduct	(47)	(48)	(46)	(48)	(47)	(46)
Lymphoma Malignant	1 (2%)		1 (2%)			
Uterus	(50)	(48)	(45)	(49)	(48)	(46)
Histiocytic Sarcoma, Metastatic, Skin						
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lymphoma Malignant	1 (2%)	1 (2%)	1 (2%)			
Polyp Stromal	5 (10%)	3 (6%)	7 (16%)	2 (4%)	4 (8%)	3 (7%)
Polyp Stromal, Multiple						
Sarcoma						
Schwannoma Malignant						
Yolk Sac Carcinoma, Metastatic, Ovary				1 (2%)		
Cervix, Polyp Stromal						
Cervix, Squamous Cell Carcinoma						
Endometrium, Adenocarcinoma		1 (2%)			1 (2%)	2 (4%)
Endometrium, Adenoma	2 (4%)					
Endothelium, Adenoma						
Vagina	(49)	(48)	(45)	(49)	(50)	(46)
Histiocytic Sarcoma, Metastatic, Skin						
Lymphoma Malignant	1 (2%)		1 (2%)			
Sarcoma Stromal						
Epithelium, Squamous Cell Carcinoma		1 (2%)				

HEMATOPOIETIC SYSTEM

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Experiment Number: 10034 - 04

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2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Bone Marrow	(50)	(48)	(46)	(49)	(49)	(46)
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lymphoma Malignant	2 (4%)	1 (2%)	1 (2%)		2 (4%)	1 (2%)
Lymph Node	(12)	(9)	(6)	(8)	(4)	(6)
Axillary, Leukemia Granulocytic	1 (8%)					
Axillary, Lymphoma Malignant	1 (8%)				1 (25%)	
Brachial, Lymphoma Malignant						
Cervical, Leukemia Granulocytic	1 (8%)					
Cervical, Lymphoma Malignant	1 (8%)		1 (17%)			
Iliac, Lymphoma Malignant					1 (25%)	
Inguinal, Lymphoma Malignant					1 (25%)	
Lumbar, Leukemia Granulocytic	1 (8%)					
Lumbar, Leukemia Mononuclear						
Lumbar, Lymphoma Malignant	1 (8%)	1 (11%)	1 (17%)			
Mediastinal, Adenocarcinoma, Metastatic, Uterus						1 (17%)
Mediastinal, Fibrosarcoma, Metastatic, Skin						
Mediastinal, Leukemia Granulocytic	1 (8%)					
Mediastinal, Leukemia Mononuclear						
Mediastinal, Lymphoma Malignant	1 (8%)	1 (11%)	1 (17%)			
Pancreatic, Leukemia Granulocytic	1 (8%)					
Pancreatic, Lymphoma Malignant	1 (8%)	1 (11%)	1 (17%)		2 (50%)	
Popliteal, Leukemia Granulocytic	1 (8%)					
Renal, Leukemia Granulocytic	1 (8%)					
Renal, Lymphoma Malignant	1 (8%)	1 (11%)	1 (17%)		2 (50%)	
Lymph Node, Mandibular	(5)	(0)	(4)	(2)	(4)	(6)
Histiocytic Sarcoma						1 (17%)
Leukemia Granulocytic	1 (20%)					
Leukemia Mononuclear						
Lymphoma Malignant	1 (20%)		1 (25%)		1 (25%)	1 (17%)
Lymph Node, Mesenteric	(2)	(1)	(2)	(0)	(0)	(2)
Leukemia Granulocytic	1 (50%)					
Leukemia Mononuclear						
Lymphoma Malignant	1 (50%)	1 (100%)	1 (50%)			1 (50%)
Spleen	(50)	(48)	(46)	(49)	(50)	(46)

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P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Adenocarcinoma, Metastatic, Uterus						1 (2%)
Fibrosarcoma, Metastatic, Skin						
Histiocytic Sarcoma						1 (2%)
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lymphoma Malignant	2 (4%)	1 (2%)	1 (2%)		2 (4%)	1 (2%)
Sarcoma				1 (2%)		
Thymoma Malignant, Metastatic, Thymus						
Yolk Sac Carcinoma, Metastatic, Ovary				1 (2%)		
Thymus	(50)	(48)	(44)	(49)	(49)	(45)
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lymphoma Malignant	2 (4%)		1 (2%)		1 (2%)	1 (2%)
Squamous Cell Carcinoma						
Thymoma Benign	1 (2%)					
Epithelial Cell, Thymoma Malignant	1 (2%)					
INTEGUMENTARY SYSTEM						
Mammary Gland	(50)	(48)	(46)	(49)	(50)	(46)
Adenocarcinoma	2 (4%)	3 (6%)	3 (7%)	3 (6%)	6 (12%)	1 (2%)
Adenocarcinoma, Multiple	2 (4%)	3 (6%)	3 (7%)	2 (4%)	3 (6%)	1 (2%)
Adenoma	2 (4%)	1 (2%)	2 (4%)		2 (4%)	1 (2%)
Adenoma, Multiple				1 (2%)		
Adenosquamous Carcinoma						1 (2%)
Carcinosarcoma	1 (2%)					
Fibroadenoma	20 (40%)	8 (17%)	13 (28%)	7 (14%)	14 (28%)	7 (15%)
Fibroadenoma, Multiple	21 (42%)	32 (67%)	20 (43%)	32 (65%)	21 (42%)	31 (67%)
Fibroma						
Fibrosarcoma, Metastatic, Skin						
Hemangiosarcoma					1 (2%)	
Leukemia Granulocytic	1 (2%)					
Lymphoma Malignant			1 (2%)		2 (4%)	
Mixed Tumor Benign	1 (2%)					
Sarcoma						

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Skin	(17)	(12)	(14)	(12)	(13)	(17)
Basal Cell Adenoma	1 (6%)	1 (8%)				
Basal Cell Carcinoma						
Squamous Cell Papilloma	1 (6%)			1 (8%)		1 (6%)
Subcutaneous Tissue, Fibroma						
Subcutaneous Tissue, Fibrosarcoma		1 (8%)			1 (8%)	1 (6%)
Subcutaneous Tissue, Histiocytic Sarcoma						
Subcutaneous Tissue, Lipoma			2 (14%)	1 (8%)		
MUSCULOSKELETAL SYSTEM						
Bone	(1)	(0)	(0)	(0)	(1)	(0)
Joint, Leukemia Granulocytic	1 (100%)					
Vertebra, Adenocarcinoma, Metastatic, Uterus						
Bone, Femur	(50)	(48)	(46)	(49)	(50)	(46)
Skeletal Muscle	(1)	(1)	(2)	(1)	(1)	(1)
Adenocarcinoma, Metastatic, Uterus						1 (100%)
Lymphoma Malignant						
Rhabdomyosarcoma						
NERVOUS SYSTEM						
Brain, Brain Stem	(50)	(48)	(46)	(49)	(50)	(46)
Carcinoma, Deep Invasion	1 (2%)	1 (2%)				
Glioma Malignant			1 (2%)			
Leukemia Mononuclear						
Lymphoma Malignant						
Oligodendroglioma Malignant		1 (2%)				
Brain, Cerebellum	(50)	(48)	(46)	(49)	(50)	(46)
Glioma Malignant			1 (2%)			
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lymphoma Malignant						
Brain, Cerebrum	(50)	(48)	(46)	(49)	(50)	(46)
Glioma Malignant			1 (2%)	1 (2%)		

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Granular Cell Tumor Benign						
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lymphoma Malignant			1 (2%)			
Oligodendroglioma Malignant		1 (2%)				
Nerve Trigeminal	(7)	(12)	(2)	(12)	(11)	(6)
Peripheral Nerve, Sciatic	(7)	(12)	(2)	(12)	(11)	(6)
Peripheral Nerve, Tibial	(7)	(12)	(2)	(12)	(11)	(6)
Spinal Cord, Cervical	(7)	(11)	(2)	(12)	(10)	(6)
Spinal Cord, Lumbar	(7)	(12)	(2)	(12)	(10)	(6)
Spinal Cord, Thoracic	(7)	(11)	(2)	(12)	(10)	(6)
RESPIRATORY SYSTEM						
Lung	(38)	(32)	(34)	(39)	(44)	(42)
Adenocarcinoma, Metastatic, Uterus						1 (2%)
Alveolar/Bronchiolar Adenoma			1 (3%)			
Carcinosarcoma, Metastatic, Mammary Gland						
Fibrosarcoma, Metastatic, Skin						
Histiocytic Sarcoma						1 (2%)
Histiocytic Sarcoma, Metastatic, Skin						
Leukemia Granulocytic	1 (3%)					
Leukemia Mononuclear						
Lymphoma Malignant	2 (5%)	1 (3%)	1 (3%)		1 (2%)	1 (2%)
Sarcoma, Metastatic, Uncertain Primary Site						
Squamous Cell Carcinoma, Metastatic, Thymus						
Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site			1 (3%)			
C-cell, Carcinoma, Metastatic, Thyroid Gland		1 (3%)				
Nose	(34)	(29)	(32)	(36)	(38)	(38)
Leukemia Granulocytic	1 (3%)					
Lymphoma Malignant	1 (3%)		1 (3%)		2 (5%)	
Osteosarcoma					1 (3%)	
Trachea	(32)	(29)	(32)	(34)	(37)	(38)
Leukemia Granulocytic	1 (3%)					

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Lymphoma Malignant	1 (3%)		1 (3%)			
SPECIAL SENSES SYSTEM						
Ear	(0)	(0)	(0)	(1)	(0)	(0)
Neural Crest Tumor, Benign				1 (100%)		
Eye	(1)	(0)	(1)	(0)	(2)	(0)
Zymbal's Gland	(0)	(1)	(0)	(0)	(2)	(2)
Adenoma					1 (50%)	
Carcinoma		1 (100%)			1 (50%)	2 (100%)
URINARY SYSTEM						
Kidney	(50)	(48)	(46)	(49)	(50)	(46)
Adenocarcinoma, Metastatic, Uterus						1 (2%)
Fibrosarcoma, Metastatic, Skin						
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lipoma	1 (2%)					
Lymphoma Malignant	2 (4%)	1 (2%)	1 (2%)		2 (4%)	1 (2%)
Sarcoma, Metastatic, Uncertain Primary Site						
Urinary Bladder	(0)	(1)	(0)	(2)	(0)	(1)
SYSTEMIC LESIONS						
Multiple Organ	*(50)	*(48)	*(46)	*(49)	*(50)	*(46)
Histiocytic Sarcoma						1 (2%)
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lymphoma Malignant	2 (4%)	1 (2%)	1 (2%)		2 (4%)	1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

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2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
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Disposition Summary

Animals Initially In Study	26	26	50	50	48	50
Early Deaths						
Moribund Sacrifice	17	16	29	29	27	26
Natural Death	1	4	3	4	3	2
Survivors						
Moribund Sacrifice	1	2	7	3	5	9
Natural Death				2		
Terminal Sacrifice	7	4	11	12	13	13
Animals Examined Microscopically	26	26	50	50	48	50

ALIMENTARY SYSTEM

Esophagus	(19)	(22)	(38)	(38)	(35)	(37)
Intestine Large, Cecum	(0)	(0)	(0)	(0)	(0)	(0)
Lymphoma Malignant						
Intestine Large, Colon	(19)	(21)	(38)	(34)	(33)	(35)
Adenocarcinoma						
Adenocarcinoma, Metastatic, Uterus						
Lymphoma Malignant						
Intestine Small, Duodenum	(0)	(1)	(0)	(0)	(0)	(0)
Intestine Small, Ileum	(19)	(18)	(36)	(34)	(31)	(35)
Adenocarcinoma, Metastatic, Uterus						
Leukemia Granulocytic						
Lymphoma Malignant						
Intestine Small, Jejunum	(0)	(2)	(1)	(2)	(0)	(0)
Adenocarcinoma		1 (50%)	1 (100%)	1 (50%)		
Leiomyoma						
Leiomyosarcoma						
Lymphoma Malignant						
Liver	(26)	(26)	(49)	(50)	(48)	(50)
Adenocarcinoma, Metastatic, Uterus						
Fibrosarcoma, Metastatic, Skin						
Hepatocellular Adenoma		1 (4%)				
Histiocytic Sarcoma						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Histiocytic Sarcoma, Metastatic, Skin				1 (2%)		
Leukemia Granulocytic						
Leukemia Mononuclear						2 (4%)
Lymphoma Malignant				1 (2%)		1 (2%)
Sarcoma, Metastatic, Spleen						
Sarcoma, Metastatic, Uncertain Primary Site	1 (4%)					
Yolk Sac Carcinoma, Metastatic, Ovary						
Mesentery	(2)	(1)	(2)	(3)	(1)	(2)
Adenocarcinoma, Metastatic, Uterus						
Hemangiosarcoma					1 (100%)	
Lymphoma Malignant				1 (33%)		
Sarcoma, Metastatic, Uncertain Primary Site	1 (50%)					
Yolk Sac Carcinoma, Metastatic, Ovary						
Oral Mucosa	(0)	(0)	(1)	(0)	(1)	(0)
Squamous Cell Papilloma			1 (100%)		1 (100%)	
Pancreas	(26)	(26)	(49)	(49)	(47)	(49)
Adenocarcinoma, Metastatic, Uterus						
Leukemia Granulocytic						
Leukemia Mononuclear						2 (4%)
Lymphoma Malignant				1 (2%)		
Yolk Sac Carcinoma, Metastatic, Ovary						
Acinar Cell, Adenoma						
Stomach, Forestomach	(19)	(22)	(38)	(38)	(35)	(37)
Adenocarcinoma, Metastatic, Uterus						
Lymphoma Malignant						
Squamous Cell Carcinoma						
Squamous Cell Papilloma						
Stomach, Glandular	(19)	(21)	(38)	(36)	(33)	(37)
Adenocarcinoma, Metastatic, Uterus						
Leukemia Granulocytic						
Lymphoma Malignant						
Tongue	(0)	(1)	(0)	(0)	(0)	(0)

CARDIOVASCULAR SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Blood Vessel	(26)	(26)	(50)	(50)	(48)	(50)
Lymphoma Malignant						
Heart	(26)	(26)	(50)	(50)	(48)	(50)
Fibrosarcoma, Metastatic, Skin						
Leukemia Granulocytic						
Leukemia Mononuclear						2 (4%)
Lymphoma Malignant				1 (2%)		
Schwannoma Benign			2 (4%)			
Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site						
ENDOCRINE SYSTEM						
Adrenal Cortex	(26)	(26)	(49)	(49)	(48)	(50)
Adenoma		1 (4%)				1 (2%)
Fibrosarcoma, Metastatic, Skin						
Leukemia Granulocytic						
Leukemia Mononuclear						1 (2%)
Lymphoma Malignant				1 (2%)		
Bilateral, Adenoma						1 (2%)
Adrenal Medulla	(26)	(26)	(49)	(50)	(48)	(48)
Lymphoma Malignant				1 (2%)		
Pheochromocytoma Benign	1 (4%)	2 (8%)	2 (4%)		1 (2%)	1 (2%)
Pheochromocytoma Malignant						
Islets, Pancreatic	(26)	(26)	(49)	(50)	(48)	(49)
Adenoma	1 (4%)			1 (2%)	1 (2%)	1 (2%)
Carcinoma						
Lymphoma Malignant						
Parathyroid Gland	(26)	(26)	(45)	(49)	(47)	(47)
Adenoma						
Carcinoma, Deep Invasion						1 (2%)
Leukemia Granulocytic						
Lymphoma Malignant						
Pituitary Gland	(26)	(26)	(49)	(50)	(48)	(50)
Leukemia Granulocytic						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Leukemia Mononuclear						1 (2%)
Lymphoma Malignant				1 (2%)		
Pars Distalis, Adenoma	10 (38%)	17 (65%)	23 (47%)	16 (32%)	14 (29%)	20 (40%)
Pars Distalis, Carcinoma		3 (12%)				1 (2%)
Pars Intermedia, Adenoma						
Thyroid Gland	(26)	(25)	(48)	(49)	(45)	(48)
Leukemia Granulocytic						
Lymphoma Malignant				1 (2%)		
C-cell, Adenoma		2 (8%)		1 (2%)		
C-cell, Carcinoma						2 (4%)
Follicular Cell, Carcinoma						

GENERAL BODY SYSTEM

Tissue NOS	(2)	(0)	(1)	(0)	(0)	(0)
Fibrosarcoma, Metastatic, Clitoral Gland						
Fibrosarcoma, Metastatic, Skin	1 (50%)					
Leiomyosarcoma						
Lipoma			1 (100%)			
Sarcoma	1 (50%)					

GENITAL SYSTEM

Clitoral Gland	(2)	(6)	(6)	(6)	(6)	(8)
Adenoma		2 (33%)	1 (17%)			1 (13%)
Carcinoma			1 (17%)			1 (13%)
Fibrosarcoma						
Lymphoma Malignant						
Squamous Cell Papilloma						1 (13%)
Fat Pad, Ovarian/parametrial	(0)	(0)	(0)	(0)	(0)	(0)
Adenocarcinoma, Metastatic, Uterus						
Ovary	(26)	(26)	(49)	(49)	(47)	(50)
Adenocarcinoma, Metastatic, Uterus						
Fibrosarcoma, Metastatic, Skin						
Granulosa Cell Tumor Benign			1 (2%)	1 (2%)		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Granulosa Cell Tumor Malignant						
Leukemia Granulocytic						
Leukemia Mononuclear						1 (2%)
Lymphoma Malignant				1 (2%)		
Sarcoma, Metastatic, Uncertain Primary Site	1 (4%)					
Sex Cord Stromal Tumor, Benign					1 (2%)	
Thecoma Benign						
Thecoma Malignant						
Tubulostromal Adenoma	1 (4%)					
Yolk Sac Carcinoma						
Oviduct	(26)	(26)	(49)	(49)	(45)	(48)
Lymphoma Malignant				1 (2%)		
Uterus	(26)	(26)	(49)	(49)	(48)	(49)
Histiocytic Sarcoma, Metastatic, Skin				1 (2%)		
Leukemia Granulocytic						
Leukemia Mononuclear						1 (2%)
Lymphoma Malignant				1 (2%)		
Polyp Stromal	3 (12%)	1 (4%)	7 (14%)	4 (8%)	5 (10%)	5 (10%)
Polyp Stromal, Multiple						1 (2%)
Sarcoma					1 (2%)	
Schwannoma Malignant					1 (2%)	
Yolk Sac Carcinoma, Metastatic, Ovary						
Cervix, Polyp Stromal						1 (2%)
Cervix, Squamous Cell Carcinoma		1 (4%)				
Endometrium, Adenocarcinoma			1 (2%)	1 (2%)		
Endometrium, Adenoma						
Endothelium, Adenoma				1 (2%)		
Vagina	(26)	(26)	(49)	(50)	(47)	(49)
Histiocytic Sarcoma, Metastatic, Skin				1 (2%)		
Lymphoma Malignant						
Sarcoma Stromal						
Epithelium, Squamous Cell Carcinoma						

HEMATOPOIETIC SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Bone Marrow	(26)	(26)	(49)	(49)	(47)	(49)
Leukemia Granulocytic						
Leukemia Mononuclear						2 (4%)
Lymphoma Malignant				1 (2%)		1 (2%)
Lymph Node	(4)	(3)	(9)	(6)	(3)	(10)
Axillary, Leukemia Granulocytic						
Axillary, Lymphoma Malignant				1 (17%)		
Brachial, Lymphoma Malignant				1 (17%)		
Cervical, Leukemia Granulocytic						
Cervical, Lymphoma Malignant				1 (17%)		
Iliac, Lymphoma Malignant						
Inguinal, Lymphoma Malignant						
Lumbar, Leukemia Granulocytic						
Lumbar, Leukemia Mononuclear						1 (10%)
Lumbar, Lymphoma Malignant				1 (17%)		
Mediastinal, Adenocarcinoma, Metastatic, Uterus						
Mediastinal, Fibrosarcoma, Metastatic, Skin						
Mediastinal, Leukemia Granulocytic						
Mediastinal, Leukemia Mononuclear						1 (10%)
Mediastinal, Lymphoma Malignant				1 (17%)		
Pancreatic, Leukemia Granulocytic						
Pancreatic, Lymphoma Malignant				1 (17%)		
Popliteal, Leukemia Granulocytic						
Renal, Leukemia Granulocytic						
Renal, Lymphoma Malignant				1 (17%)		
Lymph Node, Mandibular	(0)	(1)	(4)	(5)	(3)	(8)
Histiocytic Sarcoma						
Leukemia Granulocytic						
Leukemia Mononuclear						1 (13%)
Lymphoma Malignant				1 (20%)		
Lymph Node, Mesenteric	(1)	(0)	(0)	(1)	(0)	(1)
Leukemia Granulocytic						
Leukemia Mononuclear						1 (100%)
Lymphoma Malignant				1 (100%)		
Spleen	(26)	(26)	(49)	(50)	(47)	(49)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Adenocarcinoma, Metastatic, Uterus						
Fibrosarcoma, Metastatic, Skin						
Histiocytic Sarcoma						
Leukemia Granulocytic						
Leukemia Mononuclear						2 (4%)
Lymphoma Malignant				1 (2%)		1 (2%)
Sarcoma						1 (2%)
Thymoma Malignant, Metastatic, Thymus		1 (4%)				
Yolk Sac Carcinoma, Metastatic, Ovary						
Thymus	(26)	(26)	(49)	(50)	(48)	(50)
Leukemia Granulocytic						
Leukemia Mononuclear						2 (4%)
Lymphoma Malignant				1 (2%)		1 (2%)
Squamous Cell Carcinoma				1 (2%)		
Thymoma Benign			1 (2%)			
Epithelial Cell, Thymoma Malignant		1 (4%)				

INTEGUMENTARY SYSTEM

Mammary Gland	(26)	(26)	(50)	(50)	(48)	(49)
Adenocarcinoma	2 (8%)	6 (23%)	2 (4%)	10 (20%)	4 (8%)	5 (10%)
Adenocarcinoma, Multiple		4 (15%)	1 (2%)	1 (2%)	1 (2%)	2 (4%)
Adenoma			1 (2%)	1 (2%)		3 (6%)
Adenoma, Multiple						
Adenosquamous Carcinoma						
Carcinosarcoma					2 (4%)	
Fibroadenoma	7 (27%)	10 (38%)	14 (28%)	13 (26%)	9 (19%)	11 (22%)
Fibroadenoma, Multiple	11 (42%)	4 (15%)	29 (58%)	32 (64%)	28 (58%)	31 (63%)
Fibroma			1 (2%)			
Fibrosarcoma, Metastatic, Skin						
Hemangiosarcoma						
Leukemia Granulocytic						
Lymphoma Malignant						
Mixed Tumor Benign						
Sarcoma	1 (4%)					

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Skin	(9)	(9)	(16)	(8)	(8)	(19)
Basal Cell Adenoma			2 (13%)		1 (13%)	1 (5%)
Basal Cell Carcinoma						
Squamous Cell Papilloma			1 (6%)			2 (11%)
Subcutaneous Tissue, Fibroma						1 (5%)
Subcutaneous Tissue, Fibrosarcoma	1 (11%)			1 (13%)	2 (25%)	
Subcutaneous Tissue, Histiocytic Sarcoma				2 (25%)		
Subcutaneous Tissue, Lipoma			1 (6%)			1 (5%)
MUSCULOSKELETAL SYSTEM						
Bone	(0)	(0)	(2)	(0)	(0)	(0)
Joint, Leukemia Granulocytic						
Vertebra, Adenocarcinoma, Metastatic, Uterus			1 (50%)			
Bone, Femur	(26)	(26)	(50)	(50)	(48)	(50)
Skeletal Muscle	(0)	(3)	(0)	(0)	(0)	(1)
Adenocarcinoma, Metastatic, Uterus						
Lymphoma Malignant						
Rhabdomyosarcoma		1 (33%)				
NERVOUS SYSTEM						
Brain, Brain Stem	(26)	(26)	(49)	(50)	(48)	(50)
Carcinoma, Deep Invasion		3 (12%)				
Glioma Malignant						
Leukemia Mononuclear						1 (2%)
Lymphoma Malignant				1 (2%)		
Oligodendroglioma Malignant						
Brain, Cerebellum	(26)	(26)	(49)	(50)	(48)	(50)
Glioma Malignant						
Leukemia Granulocytic						
Leukemia Mononuclear						1 (2%)
Lymphoma Malignant				1 (2%)		
Brain, Cerebrum	(26)	(26)	(49)	(50)	(48)	(50)
Glioma Malignant						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Granular Cell Tumor Benign		1 (4%)				
Leukemia Granulocytic						
Leukemia Mononuclear						1 (2%)
Lymphoma Malignant				1 (2%)		
Oligodendroglioma Malignant						
Nerve Trigeminal	(5)	(4)	(1)	(3)	(0)	(3)
Peripheral Nerve, Sciatic	(5)	(4)	(1)	(3)	(0)	(3)
Peripheral Nerve, Tibial	(5)	(4)	(1)	(3)	(0)	(3)
Spinal Cord, Cervical	(5)	(4)	(1)	(3)	(0)	(3)
Spinal Cord, Lumbar	(5)	(4)	(1)	(3)	(0)	(3)
Spinal Cord, Thoracic	(5)	(4)	(1)	(3)	(0)	(3)

RESPIRATORY SYSTEM

Lung	(21)	(22)	(40)	(40)	(39)	(40)
Adenocarcinoma, Metastatic, Uterus			1 (3%)			
Alveolar/Bronchiolar Adenoma						
Carcinosarcoma, Metastatic, Mammary Gland					1 (3%)	
Fibrosarcoma, Metastatic, Skin						
Histiocytic Sarcoma						
Histiocytic Sarcoma, Metastatic, Skin				1 (3%)		
Leukemia Granulocytic						
Leukemia Mononuclear						1 (3%)
Lymphoma Malignant				1 (3%)		
Sarcoma, Metastatic, Uncertain Primary Site	1 (5%)					
Squamous Cell Carcinoma, Metastatic, Thymus				1 (3%)		
Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site						
C-cell, Carcinoma, Metastatic, Thyroid Gland						
Nose	(19)	(22)	(38)	(36)	(35)	(37)
Leukemia Granulocytic						
Lymphoma Malignant				1 (3%)		
Osteosarcoma						
Trachea	(19)	(20)	(38)	(36)	(33)	(35)
Leukemia Granulocytic						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Lymphoma Malignant						
SPECIAL SENSES SYSTEM						
Ear	(0)	(0)	(0)	(0)	(0)	(0)
Neural Crest Tumor, Benign						
Eye	(0)	(0)	(0)	(0)	(0)	(0)
Zymbal's Gland	(1)	(0)	(0)	(1)	(0)	(0)
Adenoma				1 (100%)		
Carcinoma						
URINARY SYSTEM						
Kidney	(26)	(26)	(49)	(50)	(47)	(49)
Adenocarcinoma, Metastatic, Uterus						
Fibrosarcoma, Metastatic, Skin						
Leukemia Granulocytic						
Leukemia Mononuclear						2 (4%)
Lipoma						
Lymphoma Malignant				1 (2%)		
Sarcoma, Metastatic, Uncertain Primary Site	1 (4%)					
Urinary Bladder	(1)	(0)	(0)	(1)	(0)	(0)
SYSTEMIC LESIONS						
Multiple Organ	*(26)	*(26)	*(50)	*(50)	*(48)	*(50)
Histiocytic Sarcoma				2 (4%)		
Leukemia Granulocytic						
Leukemia Mononuclear						2 (4%)
Lymphoma Malignant				1 (2%)		1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
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Disposition Summary

Animals Initially In Study	50	46
Early Deaths		
Moribund Sacrifice	26	25
Natural Death	3	2
Survivors		
Moribund Sacrifice	4	6
Natural Death		
Terminal Sacrifice	17	13
Animals Examined Microscopically	50	46

ALIMENTARY SYSTEM

Esophagus	(33)	(33)
Intestine Large, Cecum	(0)	(0)
Lymphoma Malignant		
Intestine Large, Colon	(32)	(33)
Adenocarcinoma		1 (3%)
Adenocarcinoma, Metastatic, Uterus		
Lymphoma Malignant		
Intestine Small, Duodenum	(0)	(0)
Intestine Small, Ileum	(30)	(33)
Adenocarcinoma, Metastatic, Uterus		
Leukemia Granulocytic		
Lymphoma Malignant		1 (3%)
Intestine Small, Jejunum	(0)	(0)
Adenocarcinoma		
Leiomyoma		
Leiomyosarcoma		
Lymphoma Malignant		
Liver	(50)	(46)
Adenocarcinoma, Metastatic, Uterus		
Fibrosarcoma, Metastatic, Skin	1 (2%)	
Hepatocellular Adenoma		1 (2%)
Histiocytic Sarcoma	1 (2%)	

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Histiocytic Sarcoma, Metastatic, Skin		
Leukemia Granulocytic		
Leukemia Mononuclear	1 (2%)	
Lymphoma Malignant		2 (4%)
Sarcoma, Metastatic, Spleen		
Sarcoma, Metastatic, Uncertain Primary Site		
Yolk Sac Carcinoma, Metastatic, Ovary		
Mesentery	(1)	(3)
Adenocarcinoma, Metastatic, Uterus		
Hemangiosarcoma		
Lymphoma Malignant		
Sarcoma, Metastatic, Uncertain Primary Site		
Yolk Sac Carcinoma, Metastatic, Ovary		
Oral Mucosa	(0)	(1)
Squamous Cell Papilloma		1 (100%)
Pancreas	(49)	(46)
Adenocarcinoma, Metastatic, Uterus		
Leukemia Granulocytic		
Leukemia Mononuclear	1 (2%)	
Lymphoma Malignant		2 (4%)
Yolk Sac Carcinoma, Metastatic, Ovary		
Acinar Cell, Adenoma	1 (2%)	
Stomach, Forestomach	(34)	(34)
Adenocarcinoma, Metastatic, Uterus		
Lymphoma Malignant		2 (6%)
Squamous Cell Carcinoma	1 (3%)	
Squamous Cell Papilloma		1 (3%)
Stomach, Glandular	(32)	(32)
Adenocarcinoma, Metastatic, Uterus		
Leukemia Granulocytic		
Lymphoma Malignant		1 (3%)
Tongue	(0)	(0)

CARDIOVASCULAR SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Blood Vessel	(50)	(46)
Lymphoma Malignant		1 (2%)
Heart	(50)	(46)
Fibrosarcoma, Metastatic, Skin	1 (2%)	
Leukemia Granulocytic		
Leukemia Mononuclear	1 (2%)	
Lymphoma Malignant		2 (4%)
Schwannoma Benign		
Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site		

ENDOCRINE SYSTEM

Adrenal Cortex	(50)	(46)
Adenoma		1 (2%)
Fibrosarcoma, Metastatic, Skin	1 (2%)	
Leukemia Granulocytic		
Leukemia Mononuclear	1 (2%)	
Lymphoma Malignant		2 (4%)
Bilateral, Adenoma		
Adrenal Medulla	(50)	(45)
Lymphoma Malignant		1 (2%)
Pheochromocytoma Benign		1 (2%)
Pheochromocytoma Malignant		
Islets, Pancreatic	(49)	(46)
Adenoma	1 (2%)	1 (2%)
Carcinoma	1 (2%)	
Lymphoma Malignant		1 (2%)
Parathyroid Gland	(47)	(46)
Adenoma	1 (2%)	
Carcinoma, Deep Invasion		
Leukemia Granulocytic		
Lymphoma Malignant		1 (2%)
Pituitary Gland	(50)	(46)
Leukemia Granulocytic		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Leukemia Mononuclear	1 (2%)	
Lymphoma Malignant		2 (4%)
Pars Distalis, Adenoma	20 (40%)	20 (43%)
Pars Distalis, Carcinoma		1 (2%)
Pars Intermedia, Adenoma		
Thyroid Gland	(50)	(46)
Leukemia Granulocytic		
Lymphoma Malignant		1 (2%)
C-cell, Adenoma		
C-cell, Carcinoma		
Follicular Cell, Carcinoma		

GENERAL BODY SYSTEM

Tissue NOS	(0)	(1)
Fibrosarcoma, Metastatic, Clitoral Gland		
Fibrosarcoma, Metastatic, Skin		
Leiomyosarcoma		
Lipoma		1 (100%)
Sarcoma		

GENITAL SYSTEM

Clitoral Gland	(6)	(7)
Adenoma		1 (14%)
Carcinoma	2 (33%)	1 (14%)
Fibrosarcoma		
Lymphoma Malignant		
Squamous Cell Papilloma		
Fat Pad, Ovarian/parametrial	(1)	(0)
Adenocarcinoma, Metastatic, Uterus		
Ovary	(50)	(46)
Adenocarcinoma, Metastatic, Uterus		
Fibrosarcoma, Metastatic, Skin	1 (2%)	
Granulosa Cell Tumor Benign		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Granulosa Cell Tumor Malignant		
Leukemia Granulocytic		
Leukemia Mononuclear	1 (2%)	
Lymphoma Malignant		2 (4%)
Sarcoma, Metastatic, Uncertain Primary Site		
Sex Cord Stromal Tumor, Benign		
Thecoma Benign		
Thecoma Malignant	1 (2%)	
Tubulostromal Adenoma		
Yolk Sac Carcinoma		
Oviduct	(49)	(46)
Lymphoma Malignant		2 (4%)
Uterus	(49)	(46)
Histiocytic Sarcoma, Metastatic, Skin		
Leukemia Granulocytic		
Leukemia Mononuclear		
Lymphoma Malignant		2 (4%)
Polyp Stromal	4 (8%)	1 (2%)
Polyp Stromal, Multiple		
Sarcoma		
Schwannoma Malignant		
Yolk Sac Carcinoma, Metastatic, Ovary		
Cervix, Polyp Stromal		
Cervix, Squamous Cell Carcinoma		
Endometrium, Adenocarcinoma		
Endometrium, Adenoma		1 (2%)
Endothelium, Adenoma		
Vagina	(49)	(46)
Histiocytic Sarcoma, Metastatic, Skin		
Lymphoma Malignant		1 (2%)
Sarcoma Stromal	1 (2%)	
Epithelium, Squamous Cell Carcinoma		

HEMATOPOIETIC SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Bone Marrow	(49)	(45)
Leukemia Granulocytic		
Leukemia Mononuclear	1 (2%)	
Lymphoma Malignant		1 (2%)
Lymph Node	(4)	(11)
Axillary, Leukemia Granulocytic		
Axillary, Lymphoma Malignant		2 (18%)
Brachial, Lymphoma Malignant		
Cervical, Leukemia Granulocytic		
Cervical, Lymphoma Malignant		2 (18%)
Iliac, Lymphoma Malignant		
Inguinal, Lymphoma Malignant		1 (9%)
Lumbar, Leukemia Granulocytic		
Lumbar, Leukemia Mononuclear		
Lumbar, Lymphoma Malignant		2 (18%)
Mediastinal, Adenocarcinoma, Metastatic, Uterus		
Mediastinal, Fibrosarcoma, Metastatic, Skin	1 (25%)	
Mediastinal, Leukemia Granulocytic		
Mediastinal, Leukemia Mononuclear		
Mediastinal, Lymphoma Malignant		1 (9%)
Pancreatic, Leukemia Granulocytic		
Pancreatic, Lymphoma Malignant		2 (18%)
Popliteal, Leukemia Granulocytic		
Renal, Leukemia Granulocytic		
Renal, Lymphoma Malignant		2 (18%)
Lymph Node, Mandibular	(6)	(5)
Histiocytic Sarcoma		
Leukemia Granulocytic		
Leukemia Mononuclear		
Lymphoma Malignant		2 (40%)
Lymph Node, Mesenteric	(0)	(2)
Leukemia Granulocytic		
Leukemia Mononuclear		
Lymphoma Malignant		2 (100%)
Spleen	(49)	(46)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Adenocarcinoma, Metastatic, Uterus		
Fibrosarcoma, Metastatic, Skin	1 (2%)	
Histiocytic Sarcoma		
Leukemia Granulocytic		
Leukemia Mononuclear	1 (2%)	
Lymphoma Malignant		2 (4%)
Sarcoma		
Thymoma Malignant, Metastatic, Thymus		
Yolk Sac Carcinoma, Metastatic, Ovary		
Thymus	(49)	(46)
Leukemia Granulocytic		
Leukemia Mononuclear		
Lymphoma Malignant	1 (2%)	2 (4%)
Squamous Cell Carcinoma		
Thymoma Benign		1 (2%)
Epithelial Cell, Thymoma Malignant		

INTEGUMENTARY SYSTEM

Mammary Gland	(50)	(46)
Adenocarcinoma	8 (16%)	3 (7%)
Adenocarcinoma, Multiple	1 (2%)	2 (4%)
Adenoma		1 (2%)
Adenoma, Multiple		
Adenosquamous Carcinoma	1 (2%)	
Carcinosarcoma		
Fibroadenoma	7 (14%)	6 (13%)
Fibroadenoma, Multiple	29 (58%)	28 (61%)
Fibroma		
Fibrosarcoma, Metastatic, Skin	1 (2%)	
Hemangiosarcoma		
Leukemia Granulocytic		
Lymphoma Malignant		2 (4%)
Mixed Tumor Benign		
Sarcoma		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Skin	(16)	(12)
Basal Cell Adenoma	1 (6%)	
Basal Cell Carcinoma		1 (8%)
Squamous Cell Papilloma		
Subcutaneous Tissue, Fibroma	1 (6%)	
Subcutaneous Tissue, Fibrosarcoma	2 (13%)	
Subcutaneous Tissue, Histiocytic Sarcoma		
Subcutaneous Tissue, Lipoma	1 (6%)	1 (8%)

MUSCULOSKELETAL SYSTEM

Bone	(0)	(0)
Joint, Leukemia Granulocytic		
Vertebra, Adenocarcinoma, Metastatic, Uterus		
Bone, Femur	(50)	(46)
Skeletal Muscle	(0)	(2)
Adenocarcinoma, Metastatic, Uterus		
Lymphoma Malignant		1 (50%)
Rhabdomyosarcoma		

NERVOUS SYSTEM

Brain, Brain Stem	(50)	(46)
Carcinoma, Deep Invasion		1 (2%)
Glioma Malignant		
Leukemia Mononuclear	1 (2%)	
Lymphoma Malignant		2 (4%)
Oligodendroglioma Malignant		
Brain, Cerebellum	(50)	(46)
Glioma Malignant		
Leukemia Granulocytic		
Leukemia Mononuclear	1 (2%)	
Lymphoma Malignant		2 (4%)
Brain, Cerebrum	(50)	(46)
Glioma Malignant	1 (2%)	1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Granular Cell Tumor Benign		1 (2%)
Leukemia Granulocytic		
Leukemia Mononuclear	1 (2%)	
Lymphoma Malignant		2 (4%)
Oligodendroglioma Malignant		
Nerve Trigeminal	(3)	(4)
Peripheral Nerve, Sciatic	(3)	(4)
Peripheral Nerve, Tibial	(3)	(4)
Spinal Cord, Cervical	(3)	(4)
Spinal Cord, Lumbar	(3)	(4)
Spinal Cord, Thoracic	(3)	(4)

RESPIRATORY SYSTEM

Lung	(39)	(37)
Adenocarcinoma, Metastatic, Uterus		
Alveolar/Bronchiolar Adenoma		
Carcinosarcoma, Metastatic, Mammary Gland		
Fibrosarcoma, Metastatic, Skin	1 (3%)	
Histiocytic Sarcoma		
Histiocytic Sarcoma, Metastatic, Skin		
Leukemia Granulocytic		
Leukemia Mononuclear	1 (3%)	
Lymphoma Malignant		2 (5%)
Sarcoma, Metastatic, Uncertain Primary Site		
Squamous Cell Carcinoma, Metastatic, Thymus		
Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site		
C-cell, Carcinoma, Metastatic, Thyroid Gland		
Nose	(32)	(33)
Leukemia Granulocytic		
Lymphoma Malignant		2 (6%)
Osteosarcoma		
Trachea	(32)	(33)
Leukemia Granulocytic		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 2500.StDose F

F1 25000StDose F

Lymphoma Malignant

1 (3%)

SPECIAL SENSES SYSTEM

Ear

(0)

(1)

Neural Crest Tumor, Benign

1 (100%)

Eye

(1)

(0)

Zymbal's Gland

(0)

(0)

Adenoma

Carcinoma

URINARY SYSTEM

Kidney

(50)

(46)

Adenocarcinoma, Metastatic, Uterus

Fibrosarcoma, Metastatic, Skin

1 (2%)

Leukemia Granulocytic

Leukemia Mononuclear

1 (2%)

Lipoma

2 (4%)

Lymphoma Malignant

2 (4%)

Sarcoma, Metastatic, Uncertain Primary Site

Urinary Bladder

(1)

(1)

SYSTEMIC LESIONS

Multiple Organ

*(50)

*(46)

Histiocytic Sarcoma

1 (2%)

Leukemia Granulocytic

Leukemia Mononuclear

1 (2%)

Lymphoma Malignant

1 (2%)

2 (4%)

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR)
 RATS FEMALE

F1 Veh. Ctrl F F1 2.5 BPA F F1 25.0 BPA F F1 250.0BPA F F1 2500.BPA F F1 25000BPA F

Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	47	44	38	47	45	43
Total Primary Neoplasms	97	91	73	83	86	83
Total Animals with Benign Neoplasms	44	43	37	44	40	41
Total Benign Neoplasms	82	72	60	71	64	72
Total Animals with Malignant Neoplasms	13	17	11	12	19	11
Total Malignant Neoplasms	15	19	13	12	22	11
Total Animals with Metastatic Neoplasms		2	1	2		1
Total Metastatic Neoplasms		2	2	6		14
Total Animals with Malignant Neoplasms Uncertain Primary Site			1			
Total Animals with Neoplasms Uncertain- Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
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Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	22	25	49	49	46	48
Total Primary Neoplasms	39	61	94	89	73	99
Total Animals with Benign Neoplasms	21	24	48	47	44	46
Total Benign Neoplasms	34	41	88	71	61	83
Total Animals with Malignant Neoplasms	4	12	6	16	12	15
Total Malignant Neoplasms	5	20	6	18	12	16
Total Animals with Metastatic Neoplasms	2	1	1	3	1	
Total Metastatic Neoplasms	6	1	2	5	1	
Total Animals with Malignant Neoplasms Uncertain Primary Site	1					
Total Animals with Neoplasms Uncertain- Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P02: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (a)
Bisphenol A
CAS Number: 80-05-7
2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
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Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	46	46
Total Primary Neoplasms	90	82
Total Animals with Benign Neoplasms	45	43
Total Benign Neoplasms	68	68
Total Animals with Malignant Neoplasms	15	13
Total Malignant Neoplasms	22	14
Total Animals with Metastatic Neoplasms	1	
Total Metastatic Neoplasms	9	
Total Animals with Malignant Neoplasms Uncertain Primary Site		
Total Animals with Neoplasms Uncertain- Benign or Malignant		
Total Uncertain Neoplasms		

*** END OF REPORT ***

a - Number of animals examined microscopically at site and number of animals with lesion
b - Primary tumors: all tumors except metastatic tumors

Appendix II Incidence Rates of Neoplasms by Anatomic Site (Systemic Lesions
Abridged) (Pathology Report 5)

Experiment Number: 10034 - 03

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

NTP Study Number: C10034
Lock Date: 08/16/2017
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: 09/29/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 Veh. Ctrl M

F1 2.5 BPA M

F1 25.0 BPA M

F1 250.0 BPA M

F1 2500.BPA M

F1 25000 BPA M

Disposition Summary

Animals Initially In Study	22	22	20	24	20	22
Early Deaths						
Interval Sacrifice	18	22	18	24	18	21
Moribund Sacrifice	4		1			
Natural Death			1		2	1
Survivors						
Animals Examined Microscopically	22	22	20	24	20	22

ALIMENTARY SYSTEM

Esophagus	(4)	(1)	(2)	(0)	(2)	(1)
Intestine Large, Colon	(4)	(0)	(2)	(0)	(0)	(0)
Intestine Small, Ileum	(4)	(0)	(2)	(0)	(0)	(0)
Intestine Small, Jejunum	(0)	(0)	(0)	(0)	(0)	(1)
Adenocarcinoma						1 (100%)
Adenoma						
Liver	(22)	(22)	(20)	(24)	(19)	(22)
Hepatocellular Adenoma						
Mesentery	(1)	(0)	(1)	(1)	(0)	(0)
Pancreas	(22)	(22)	(20)	(24)	(19)	(22)
Stomach, Forestomach	(5)	(0)	(3)	(0)	(1)	(1)
Stomach, Glandular	(4)	(0)	(2)	(0)	(0)	(1)

CARDIOVASCULAR SYSTEM

Blood Vessel	(22)	(22)	(20)	(24)	(20)	(22)
Heart	(22)	(22)	(20)	(24)	(20)	(22)
Schwannoma Malignant						

ENDOCRINE SYSTEM

Adrenal Cortex	(22)	(22)	(20)	(24)	(20)	(22)
Adrenal Medulla	(22)	(22)	(20)	(24)	(20)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
Islets, Pancreatic	(22)	(22)	(20)	(24)	(19)	(22)
Parathyroid Gland	(22)	(21)	(19)	(24)	(19)	(21)
Adenoma		1 (5%)				
Pituitary Gland	(22)	(22)	(20)	(24)	(20)	(22)
Pars Distalis, Adenoma					1 (5%)	1 (5%)
Thyroid Gland	(22)	(22)	(20)	(24)	(18)	(21)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Coagulating Gland	(22)	(22)	(20)	(24)	(18)	(21)
Ductus Deferens	(0)	(0)	(0)	(0)	(0)	(0)
Epididymis	(22)	(22)	(20)	(24)	(20)	(22)
Fat Pad, Epididymal	(0)	(1)	(0)	(1)	(1)	(0)
Preputial Gland	(2)	(3)	(3)	(1)	(1)	(1)
Prostate, Dorsal/lateral Lobe	(22)	(22)	(20)	(24)	(20)	(22)
Prostate, Ventral Lobe	(22)	(22)	(20)	(24)	(20)	(22)
Seminal Vesicle	(22)	(22)	(20)	(24)	(18)	(21)
Testes	(22)	(22)	(20)	(24)	(20)	(22)

HEMATOPOIETIC SYSTEM

Bone Marrow	(22)	(22)	(20)	(24)	(18)	(22)
Lymph Node	(2)	(1)	(0)	(0)	(1)	(0)
Lymph Node, Mandibular	(2)	(1)	(0)	(0)	(2)	(0)
Lymph Node, Mesenteric	(2)	(0)	(0)	(0)	(0)	(0)
Spleen	(22)	(22)	(20)	(24)	(18)	(22)
Thymus	(22)	(22)	(20)	(24)	(19)	(21)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
INTEGUMENTARY SYSTEM						
Mammary Gland	(22)	(21)	(20)	(24)	(19)	(22)
Skin	(1)	(2)	(0)	(1)	(1)	(0)
Schwannoma Benign						
Squamous Cell Papilloma	1 (100%)					
Subcutaneous Tissue, Fibrosarcoma						
Subcutaneous Tissue, Lipoma						
MUSCULOSKELETAL SYSTEM						
Bone	(0)	(0)	(0)	(1)	(0)	(0)
Bone, Femur	(22)	(22)	(20)	(24)	(20)	(22)
Skeletal Muscle	(1)	(0)	(1)	(0)	(0)	(0)
Sarcoma	1 (100%)					
NERVOUS SYSTEM						
Brain, Brain Stem	(22)	(22)	(20)	(24)	(20)	(22)
Brain, Cerebellum	(22)	(22)	(20)	(24)	(20)	(22)
Brain, Cerebrum	(22)	(22)	(20)	(24)	(20)	(22)
Nerve Trigeminal	(2)	(2)	(0)	(1)	(1)	(1)
Peripheral Nerve, Sciatic	(2)	(2)	(0)	(1)	(1)	(1)
Peripheral Nerve, Tibial	(2)	(2)	(0)	(1)	(1)	(1)
Spinal Cord, Cervical	(2)	(2)	(0)	(1)	(1)	(1)
Spinal Cord, Lumbar	(2)	(2)	(0)	(1)	(1)	(1)
Spinal Cord, Thoracic	(2)	(2)	(0)	(1)	(1)	(1)
RESPIRATORY SYSTEM						
Lung	(5)	(0)	(3)	(2)	(2)	(1)
Sarcoma, Metastatic, Skeletal Muscle	1 (20%)					
Nose	(4)	(0)	(2)	(0)	(0)	(0)
Trachea	(4)	(0)	(2)	(0)	(0)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 Veh. Ctrl M

F1 2.5 BPA M

F1 25.0 BPA M

F1 250.0 BPA M

F1 2500.BPA M

F1 25000 BPA M

SPECIAL SENSES SYSTEM

None

URINARY SYSTEM

Kidney	(22)	(22)	(20)	(24)	(19)	(22)
Urinary Bladder	(1)	(0)	(0)	(0)	(0)	(0)

SYSTEMIC LESIONS

Multiple Organ	*(22)	*(22)	*(20)	*(24)	*(20)	*(22)
Leukemia Granulocytic						
Lymphoma Malignant	2 (9%)					

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 0.05 EE2 M

F1 0.50 EE2 M

F1 Veh.StDose M

F1 2.5 StDose M

F1 25.0 StDose M

F1 250.0StDose M

Disposition Summary

Animals Initially In Study	26	26	20	20	20	19
Early Deaths						
Interval Sacrifice	22	23	20	20	19	19
Moribund Sacrifice	2					
Natural Death	2	3			1	
Survivors						
Animals Examined Microscopically	26	26	20	20	20	19

ALIMENTARY SYSTEM

Esophagus	(4)	(3)	(0)	(0)	(1)	(0)
Intestine Large, Colon	(3)	(0)	(0)	(0)	(0)	(0)
Intestine Small, Ileum	(3)	(0)	(0)	(0)	(0)	(0)
Intestine Small, Jejunum	(0)	(1)	(0)	(1)	(1)	(1)
Adenocarcinoma					1 (100%)	
Adenoma				1 (100%)		
Liver	(26)	(26)	(20)	(20)	(20)	(19)
Hepatocellular Adenoma			1 (5%)	1 (5%)		
Mesentery	(0)	(0)	(2)	(0)	(1)	(0)
Pancreas	(26)	(25)	(20)	(20)	(20)	(19)
Stomach, Forestomach	(4)	(3)	(0)	(0)	(1)	(0)
Stomach, Glandular	(4)	(1)	(0)	(0)	(1)	(0)

CARDIOVASCULAR SYSTEM

Blood Vessel	(26)	(26)	(20)	(20)	(20)	(19)
Heart	(26)	(26)	(20)	(20)	(20)	(19)
Schwannoma Malignant						1 (5%)

ENDOCRINE SYSTEM

Adrenal Cortex	(26)	(26)	(20)	(20)	(20)	(19)
Adrenal Medulla	(26)	(26)	(20)	(20)	(20)	(19)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Islets, Pancreatic	(26)	(26)	(20)	(20)	(20)	(19)
Parathyroid Gland	(26)	(26)	(20)	(20)	(19)	(19)
Adenoma						
Pituitary Gland	(26)	(26)	(20)	(20)	(20)	(19)
Pars Distalis, Adenoma			1 (5%)	1 (5%)		1 (5%)
Thyroid Gland	(25)	(24)	(20)	(20)	(20)	(19)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Coagulating Gland	(26)	(24)	(20)	(20)	(20)	(19)
Ductus Deferens	(0)	(1)	(0)	(0)	(0)	(0)
Epididymis	(26)	(26)	(20)	(20)	(20)	(19)
Fat Pad, Epididymal	(0)	(1)	(0)	(0)	(0)	(0)
Preputial Gland	(1)	(2)	(0)	(0)	(0)	(1)
Prostate, Dorsal/lateral Lobe	(26)	(26)	(20)	(20)	(20)	(18)
Prostate, Ventral Lobe	(26)	(26)	(20)	(20)	(20)	(18)
Seminal Vesicle	(26)	(24)	(20)	(20)	(20)	(19)
Testes	(26)	(25)	(20)	(20)	(20)	(19)

HEMATOPOIETIC SYSTEM

Bone Marrow	(26)	(26)	(20)	(20)	(20)	(19)
Lymph Node	(0)	(0)	(0)	(0)	(0)	(1)
Lymph Node, Mandibular	(1)	(0)	(0)	(0)	(1)	(1)
Lymph Node, Mesenteric	(1)	(0)	(0)	(1)	(0)	(0)
Spleen	(25)	(25)	(20)	(20)	(20)	(19)
Thymus	(26)	(24)	(20)	(20)	(20)	(19)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 0.05 EE2 M

F1 0.50 EE2 M

F1 Veh.StDose M

F1 2.5 StDose M

F1 25.0 StDose M

F1 250.0StDose M

INTEGUMENTARY SYSTEM

Mammary Gland	(26)	(25)	(19)	(20)	(20)	(19)
Skin	(1)	(0)	(1)	(0)	(0)	(3)
Schwannoma Benign			1 (100%)			
Squamous Cell Papilloma						
Subcutaneous Tissue, Fibrosarcoma						
Subcutaneous Tissue, Lipoma						1 (33%)

MUSCULOSKELETAL SYSTEM

Bone	(0)	(0)	(0)	(0)	(0)	(0)
Bone, Femur	(26)	(26)	(20)	(20)	(20)	(19)
Skeletal Muscle	(0)	(0)	(0)	(0)	(0)	(0)
Sarcoma						

NERVOUS SYSTEM

Brain, Brain Stem	(26)	(26)	(20)	(20)	(20)	(19)
Brain, Cerebellum	(26)	(26)	(20)	(20)	(20)	(19)
Brain, Cerebrum	(26)	(26)	(20)	(20)	(20)	(19)
Nerve Trigeminal	(2)	(1)	(0)	(0)	(0)	(0)
Peripheral Nerve, Sciatic	(2)	(1)	(0)	(0)	(0)	(0)
Peripheral Nerve, Tibial	(2)	(1)	(0)	(0)	(0)	(0)
Spinal Cord, Cervical	(2)	(1)	(0)	(0)	(0)	(0)
Spinal Cord, Lumbar	(2)	(1)	(0)	(0)	(0)	(0)
Spinal Cord, Thoracic	(2)	(1)	(0)	(0)	(0)	(0)

RESPIRATORY SYSTEM

Lung	(4)	(3)	(1)	(1)	(1)	(0)
Sarcoma, Metastatic, Skeletal Muscle						
Nose	(4)	(3)	(0)	(0)	(1)	(0)
Trachea	(3)	(2)	(0)	(0)	(1)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 0.05 EE2 M

F1 0.50 EE2 M

F1 Veh.StDose M

F1 2.5 StDose M

F1 25.0 StDose M

F1 250.0StDose M

SPECIAL SENSES SYSTEM

None

URINARY SYSTEM

Kidney	(26)	(25)	(20)	(20)	(20)	(19)
Urinary Bladder	(1)	(0)	(0)	(0)	(0)	(0)

SYSTEMIC LESIONS

Multiple Organ	*(26)	*(26)	*(20)	*(20)	*(20)	*(19)
Leukemia Granulocytic				1 (5%)		
Lymphoma Malignant		1 (4%)				

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 2500.StDose M

F1 25000StDose M

Disposition Summary

Animals Initially In Study	20	22
Early Deaths		
Interval Sacrifice	20	22
Moribund Sacrifice		
Natural Death		
Survivors		
Animals Examined Microscopically	20	22

ALIMENTARY SYSTEM

Esophagus	(0)	(0)
Intestine Large, Colon	(0)	(0)
Intestine Small, Ileum	(0)	(0)
Intestine Small, Jejunum	(0)	(0)
Adenocarcinoma		
Adenoma		
Liver	(20)	(22)
Hepatocellular Adenoma		
Mesentery	(1)	(0)
Pancreas	(20)	(22)
Stomach, Forestomach	(0)	(0)
Stomach, Glandular	(0)	(0)

CARDIOVASCULAR SYSTEM

Blood Vessel	(20)	(22)
Heart	(20)	(22)
Schwannoma Malignant		

ENDOCRINE SYSTEM

Adrenal Cortex	(20)	(22)
Adrenal Medulla	(20)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Islets, Pancreatic	(20)	(22)
Parathyroid Gland	(19)	(22)
Adenoma		
Pituitary Gland	(20)	(22)
Pars Distalis, Adenoma	1 (5%)	
Thyroid Gland	(20)	(22)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Coagulating Gland	(20)	(22)
Ductus Deferens	(0)	(0)
Epididymis	(20)	(22)
Fat Pad, Epididymal	(1)	(1)
Preputial Gland	(0)	(0)
Prostate, Dorsal/lateral Lobe	(20)	(22)
Prostate, Ventral Lobe	(20)	(22)
Seminal Vesicle	(20)	(22)
Testes	(20)	(22)

HEMATOPOIETIC SYSTEM

Bone Marrow	(20)	(22)
Lymph Node	(0)	(0)
Lymph Node, Mandibular	(1)	(0)
Lymph Node, Mesenteric	(0)	(0)
Spleen	(20)	(22)
Thymus	(20)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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INTEGUMENTARY SYSTEM

Mammary Gland	(17)	(22)
Skin	(1)	(0)
Schwannoma Benign		
Squamous Cell Papilloma		
Subcutaneous Tissue, Fibrosarcoma	1 (100%)	
Subcutaneous Tissue, Lipoma		

MUSCULOSKELETAL SYSTEM

Bone	(0)	(0)
Bone, Femur	(20)	(22)
Skeletal Muscle	(0)	(0)
Sarcoma		

NERVOUS SYSTEM

Brain, Brain Stem	(20)	(22)
Brain, Cerebellum	(20)	(22)
Brain, Cerebrum	(20)	(22)
Nerve Trigeminal	(0)	(0)
Peripheral Nerve, Sciatic	(0)	(0)
Peripheral Nerve, Tibial	(0)	(0)
Spinal Cord, Cervical	(0)	(0)
Spinal Cord, Lumbar	(0)	(0)
Spinal Cord, Thoracic	(0)	(0)

RESPIRATORY SYSTEM

Lung	(0)	(2)
Sarcoma, Metastatic, Skeletal Muscle		
Nose	(0)	(0)
Trachea	(0)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 2500.StDose M

F1 25000StDose M

SPECIAL SENSES SYSTEM

None

URINARY SYSTEM

Kidney	(20)	(22)
Urinary Bladder	(0)	(0)

SYSTEMIC LESIONS

Multiple Organ	*(20)	*(22)
Leukemia Granulocytic		
Lymphoma Malignant		

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 03

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 Veh. Ctrl M

F1 2.5 BPA M

F1 25.0 BPA M

F1 250.0 BPA M

F1 2500.BPA M

F1 25000 BPA M

Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	3	1			1	1
Total Primary Neoplasms	4	1			1	2
Total Animals with Benign Neoplasms	1	1			1	1
Total Benign Neoplasms	1	1			1	1
Total Animals with Malignant Neoplasms	3					1
Total Malignant Neoplasms	3					1
Total Animals with Metastatic Neoplasms	1					
Total Metastatic Neoplasms	1					
Total Animals with Malignant Neoplasms Uncertain Primary Site						
Total Animals with Neoplasms Uncertain- Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 03

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 0.05 EE2 M

F1 0.50 EE2 M

F1 Veh.StDose M

F1 2.5 StDose M

F1 25.0 StDose M

F1 250.0StDose M

Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	1	2	4	1	3
Total Primary Neoplasms	1	3	4	1	3
Total Animals with Benign Neoplasms		2	3		2
Total Benign Neoplasms		3	3		2
Total Animals with Malignant Neoplasms	1		1	1	1
Total Malignant Neoplasms	1		1	1	1
Total Animals with Metastatic Neoplasms					
Total Metastatic Neoplasms					
Total Animals with Malignant Neoplasms Uncertain Primary Site					
Total Animals with Neoplasms Uncertain- Benign or Malignant					
Total Uncertain Neoplasms					

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 03

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 2500.StDose M

F1 25000StDose M

Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	2
Total Primary Neoplasms	2

Total Animals with Benign Neoplasms	1
Total Benign Neoplasms	1

Total Animals with Malignant Neoplasms	1
Total Malignant Neoplasms	1

Total Animals with Metastatic Neoplasms	
Total Metastatic Neoplasms	

Total Animals with Malignant Neoplasms Uncertain Primary Site	
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Total Animals with Neoplasms Uncertain- Benign or Malignant	
Total Uncertain Neoplasms	

*** END OF MALE ***

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 Veh. Ctrl F

F1 2.5 BPA F

F1 25.0 BPA F

F1 250.0BPA F

F1 2500.BPA F

F1 25000 BPA F

Disposition Summary

Animals Initially In Study	23	22	22	24	20	24
Early Deaths						
Interval Sacrifice	21	22	21	22	20	24
Moribund Sacrifice	1			2		
Natural Death	1		1			
Survivors						
Animals Examined Microscopically	23	22	22	24	20	24

ALIMENTARY SYSTEM

Esophagus	(3)	(0)	(1)	(2)	(0)	(0)
Intestine Large, Cecum	(0)	(0)	(0)	(0)	(0)	(0)
Intestine Large, Colon	(2)	(0)	(0)	(2)	(0)	(0)
Intestine Small, Ileum	(2)	(0)	(0)	(2)	(0)	(0)
Intestine Small, Jejunum	(0)	(0)	(0)	(0)	(0)	(0)
Liver	(23)	(22)	(22)	(24)	(20)	(24)
Mesentery	(1)	(0)	(2)	(1)	(0)	(1)
Pancreas	(23)	(22)	(22)	(24)	(20)	(24)
Stomach, Forestomach	(2)	(0)	(1)	(2)	(0)	(1)
Stomach, Glandular	(2)	(0)	(0)	(2)	(0)	(0)

CARDIOVASCULAR SYSTEM

Blood Vessel	(23)	(22)	(22)	(24)	(20)	(24)
Heart	(23)	(22)	(22)	(24)	(20)	(24)

ENDOCRINE SYSTEM

Adrenal Cortex	(23)	(22)	(22)	(24)	(20)	(24)
Adrenal Medulla	(23)	(22)	(22)	(24)	(20)	(24)
Islets, Pancreatic	(23)	(22)	(22)	(24)	(20)	(24)
Carcinoma				1 (4%)		
Parathyroid Gland	(23)	(21)	(20)	(23)	(20)	(23)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
Adenoma						
Pituitary Gland	(23)	(22)	(22)	(24)	(20)	(24)
Schwannoma Malignant, Metastatic, Tissue Nos						
Pars Distalis, Adenoma			1 (5%)	1 (4%)		
Pars Distalis, Carcinoma						
Thyroid Gland	(23)	(22)	(21)	(24)	(20)	(24)
Follicular Cell, Adenoma						1 (4%)
GENERAL BODY SYSTEM						
Tissue NOS	(0)	(0)	(0)	(0)	(0)	(0)
Schwannoma Malignant						
GENITAL SYSTEM						
Clitoral Gland	(0)	(0)	(1)	(0)	(2)	(0)
Fat Pad, Ovarian/parametrial	(1)	(0)	(0)	(0)	(0)	(2)
Ovary	(23)	(22)	(22)	(24)	(20)	(24)
Oviduct	(23)	(22)	(21)	(24)	(20)	(24)
Uterus	(23)	(22)	(21)	(24)	(20)	(24)
Polyp Stromal	1 (4%)		1 (5%)		3 (15%)	3 (13%)
Endometrium, Adenoma						
Vagina	(23)	(22)	(21)	(24)	(20)	(24)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(23)	(22)	(22)	(24)	(20)	(24)
Lymph Node	(0)	(0)	(1)	(1)	(0)	(0)
Lymph Node, Mandibular	(0)	(1)	(1)	(1)	(0)	(0)
Lymph Node, Mesenteric	(0)	(0)	(0)	(0)	(0)	(0)
Spleen	(23)	(22)	(22)	(24)	(20)	(24)
Thymus	(23)	(22)	(22)	(24)	(20)	(24)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
INTEGUMENTARY SYSTEM						
Mammary Gland	(23)	(22)	(22)	(24)	(20)	(24)
Adenocarcinoma		1 (5%)	1 (5%)			
Adenosquamous Carcinoma						
Fibroadenoma	2 (9%)	3 (14%)	2 (9%)	1 (4%)	2 (10%)	5 (21%)
Fibroadenoma, Multiple			1 (5%)			1 (4%)
Skin	(0)	(0)	(0)	(0)	(1)	(0)
Subcutaneous Tissue, Fibrosarcoma						
MUSCULOSKELETAL SYSTEM						
Bone	(0)	(1)	(0)	(0)	(0)	(0)
Bone, Femur	(23)	(22)	(22)	(24)	(20)	(24)
Skeletal Muscle	(0)	(0)	(0)	(0)	(0)	(0)
NERVOUS SYSTEM						
Brain, Brain Stem	(23)	(22)	(22)	(24)	(20)	(24)
Meningioma Malignant						
Brain, Cerebellum	(23)	(22)	(22)	(24)	(20)	(24)
Meningioma Malignant						
Brain, Cerebrum	(23)	(22)	(22)	(24)	(20)	(24)
Nerve Trigeminal	(1)	(0)	(1)	(0)	(0)	(4)
Peripheral Nerve, Sciatic	(1)	(0)	(1)	(0)	(0)	(4)
Peripheral Nerve, Tibial	(1)	(0)	(1)	(0)	(0)	(4)
Spinal Cord, Cervical	(1)	(0)	(1)	(0)	(0)	(4)
Spinal Cord, Lumbar	(1)	(0)	(1)	(0)	(0)	(4)
Spinal Cord, Thoracic	(1)	(0)	(1)	(0)	(0)	(4)
RESPIRATORY SYSTEM						
Lung	(2)	(1)	(4)	(3)	(0)	(0)
Nose	(2)	(0)	(1)	(2)	(0)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
Trachea	(2)	(0)	(1)	(2)	(0)	(0)
<hr/>						
SPECIAL SENSES SYSTEM						
Eye	(0)	(0)	(0)	(0)	(0)	(0)
Zymbal's Gland Carcinoma	(0)	(0)	(0)	(0)	(0)	(0)
<hr/>						
URINARY SYSTEM						
Kidney	(23)	(22)	(22)	(24)	(20)	(24)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 0.05 EE2 F

F1 0.50 EE2 F

F1 Veh. StDose F

F1 2.5 StDose F

F1 25.0 StDose F

F1 250.0StDose F

Disposition Summary

Animals Initially In Study	26	26	20	22	20	22
Early Deaths						
Interval Sacrifice	24	26	20	22	20	22
Moribund Sacrifice	1					
Natural Death	1					
Survivors						
Animals Examined Microscopically	26	26	20	22	20	22

ALIMENTARY SYSTEM

Esophagus	(2)	(0)	(0)	(0)	(0)	(0)
Intestine Large, Cecum	(0)	(1)	(0)	(0)	(0)	(0)
Intestine Large, Colon	(1)	(0)	(0)	(0)	(0)	(0)
Intestine Small, Ileum	(1)	(0)	(0)	(0)	(0)	(0)
Intestine Small, Jejunum	(0)	(0)	(0)	(0)	(0)	(0)
Liver	(26)	(26)	(20)	(22)	(20)	(22)
Mesentery	(1)	(2)	(1)	(0)	(0)	(0)
Pancreas	(26)	(26)	(20)	(22)	(20)	(22)
Stomach, Forestomach	(2)	(0)	(0)	(0)	(0)	(0)
Stomach, Glandular	(1)	(0)	(0)	(0)	(0)	(1)

CARDIOVASCULAR SYSTEM

Blood Vessel	(26)	(26)	(20)	(22)	(20)	(22)
Heart	(26)	(26)	(20)	(22)	(20)	(22)

ENDOCRINE SYSTEM

Adrenal Cortex	(26)	(26)	(20)	(22)	(20)	(22)
Adrenal Medulla	(26)	(26)	(20)	(22)	(20)	(22)
Islets, Pancreatic	(26)	(26)	(20)	(22)	(20)	(22)
Carcinoma						
Parathyroid Gland	(26)	(25)	(20)	(21)	(20)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Adenoma						1 (5%)
Pituitary Gland	(25)	(26)	(20)	(22)	(20)	(22)
Schwannoma Malignant, Metastatic, Tissue Nos						
Pars Distalis, Adenoma	1 (4%)	1 (4%)			1 (5%)	
Pars Distalis, Carcinoma					1 (5%)	
Thyroid Gland	(26)	(26)	(20)	(22)	(20)	(22)
Follicular Cell, Adenoma						
GENERAL BODY SYSTEM						
Tissue NOS	(0)	(0)	(0)	(0)	(0)	(0)
Schwannoma Malignant						
GENITAL SYSTEM						
Clitoral Gland	(1)	(0)	(0)	(1)	(0)	(0)
Fat Pad, Ovarian/parametrial	(1)	(0)	(0)	(0)	(0)	(0)
Ovary	(25)	(26)	(20)	(22)	(20)	(22)
Oviduct	(25)	(26)	(20)	(22)	(20)	(22)
Uterus	(25)	(26)	(20)	(22)	(20)	(22)
Polyp Stromal	1 (4%)			1 (5%)		1 (5%)
Endometrium, Adenoma						1 (5%)
Vagina	(25)	(26)	(20)	(22)	(20)	(22)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(26)	(26)	(20)	(22)	(20)	(22)
Lymph Node	(0)	(0)	(0)	(0)	(0)	(0)
Lymph Node, Mandibular	(1)	(1)	(0)	(0)	(0)	(1)
Lymph Node, Mesenteric	(0)	(0)	(0)	(0)	(0)	(0)
Spleen	(26)	(26)	(20)	(22)	(20)	(22)
Thymus	(25)	(26)	(20)	(22)	(20)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
INTEGUMENTARY SYSTEM						
Mammary Gland	(26)	(26)	(20)	(22)	(20)	(22)
Adenocarcinoma	1 (4%)					
Adenosquamous Carcinoma	1 (4%)					
Fibroadenoma	2 (8%)	4 (15%)	4 (20%)	1 (5%)	1 (5%)	1 (5%)
Fibroadenoma, Multiple						
Skin	(0)	(0)	(0)	(0)	(0)	(1)
Subcutaneous Tissue, Fibrosarcoma						1 (100%)
MUSCULOSKELETAL SYSTEM						
Bone	(0)	(0)	(0)	(0)	(0)	(0)
Bone, Femur	(26)	(26)	(20)	(22)	(20)	(22)
Skeletal Muscle	(0)	(0)	(0)	(0)	(0)	(0)
NERVOUS SYSTEM						
Brain, Brain Stem	(26)	(26)	(20)	(22)	(20)	(22)
Meningioma Malignant						
Brain, Cerebellum	(26)	(26)	(20)	(22)	(20)	(22)
Meningioma Malignant						
Brain, Cerebrum	(26)	(26)	(20)	(22)	(20)	(22)
Nerve Trigeminal	(2)	(4)	(0)	(0)	(0)	(1)
Peripheral Nerve, Sciatic	(2)	(4)	(0)	(0)	(0)	(1)
Peripheral Nerve, Tibial	(2)	(4)	(0)	(0)	(0)	(1)
Spinal Cord, Cervical	(2)	(4)	(0)	(0)	(0)	(1)
Spinal Cord, Lumbar	(2)	(4)	(0)	(0)	(0)	(1)
Spinal Cord, Thoracic	(2)	(4)	(0)	(0)	(0)	(1)
RESPIRATORY SYSTEM						
Lung	(2)	(1)	(1)	(0)	(1)	(1)
Nose	(1)	(0)	(0)	(0)	(0)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Trachea	(2)	(0)	(0)	(0)	(0)	(0)
SPECIAL SENSES SYSTEM						
Eye	(1)	(0)	(1)	(0)	(0)	(0)
Zymbal's Gland	(0)	(0)	(0)	(0)	(0)	(1)
Carcinoma						1 (100%)
URINARY SYSTEM						
Kidney	(26)	(26)	(20)	(22)	(20)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 2500.StDose F

F1 2500StDose F

Disposition Summary

Animals Initially In Study	20	22
Early Deaths		
Interval Sacrifice	20	20
Moribund Sacrifice		2
Natural Death		
Survivors		
Animals Examined Microscopically	20	22

ALIMENTARY SYSTEM

Esophagus	(0)	(2)
Intestine Large, Cecum	(0)	(0)
Intestine Large, Colon	(0)	(2)
Intestine Small, Ileum	(1)	(2)
Intestine Small, Jejunum	(1)	(0)
Liver	(20)	(22)
Mesentery	(2)	(0)
Pancreas	(20)	(22)
Stomach, Forestomach	(0)	(2)
Stomach, Glandular	(0)	(2)

CARDIOVASCULAR SYSTEM

Blood Vessel	(20)	(22)
Heart	(20)	(22)

ENDOCRINE SYSTEM

Adrenal Cortex	(20)	(22)
Adrenal Medulla	(20)	(22)
Islets, Pancreatic	(20)	(22)
Carcinoma		
Parathyroid Gland	(19)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Adenoma		
Pituitary Gland	(20)	(22)
Schwannoma Malignant, Metastatic, Tissue Nos		1 (5%)
Pars Distalis, Adenoma		
Pars Distalis, Carcinoma		
Thyroid Gland	(20)	(22)
Follicular Cell, Adenoma		
GENERAL BODY SYSTEM		
Tissue NOS	(0)	(1)
Schwannoma Malignant		1 (100%)
GENITAL SYSTEM		
Clitoral Gland	(1)	(0)
Fat Pad, Ovarian/parametrial	(0)	(1)
Ovary	(20)	(22)
Oviduct	(20)	(22)
Uterus	(20)	(22)
Polyp Stromal		
Endometrium, Adenoma		
Vagina	(20)	(22)
HEMATOPOIETIC SYSTEM		
Bone Marrow	(20)	(22)
Lymph Node	(0)	(0)
Lymph Node, Mandibular	(0)	(0)
Lymph Node, Mesenteric	(1)	(0)
Spleen	(20)	(22)
Thymus	(20)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 2500.StDose F

F1 25000StDose F

INTEGUMENTARY SYSTEM

Mammary Gland	(20)	(22)
Adenocarcinoma		
Adenosquamous Carcinoma		
Fibroadenoma	1 (5%)	2 (9%)
Fibroadenoma, Multiple		
Skin	(0)	(0)
Subcutaneous Tissue, Fibrosarcoma		

MUSCULOSKELETAL SYSTEM

Bone	(0)	(0)
Bone, Femur	(20)	(22)
Skeletal Muscle	(0)	(2)

NERVOUS SYSTEM

Brain, Brain Stem	(20)	(22)
Meningioma Malignant		1 (5%)
Brain, Cerebellum	(20)	(22)
Meningioma Malignant		1 (5%)
Brain, Cerebrum	(20)	(22)
Nerve Trigeminal	(0)	(2)
Peripheral Nerve, Sciatic	(0)	(2)
Peripheral Nerve, Tibial	(0)	(2)
Spinal Cord, Cervical	(0)	(2)
Spinal Cord, Lumbar	(0)	(2)
Spinal Cord, Thoracic	(0)	(2)

RESPIRATORY SYSTEM

Lung	(0)	(4)
Nose	(0)	(2)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

**Sprague Dawley (NCTR)
RATS FEMALE**

F1 2500.StDose F

F1 25000StDose F

Trachea

(0)

(2)

SPECIAL SENSES SYSTEM

Eye

(0)

(0)

Zymbal's Gland

(0)

(0)

Carcinoma

URINARY SYSTEM

Kidney

(20)

(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 Veh. Ctrl F

F1 2.5 BPA F

F1 25.0 BPA F

F1 250.0BPA F

F1 2500.BPA F

F1 25000 BPA F

Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	3	4	6	3	5	9
Total Primary Neoplasms	3	4	6	3	5	10
Total Animals with Benign Neoplasms	3	3	5	2	5	9
Total Benign Neoplasms	3	3	5	2	5	10
Total Animals with Malignant Neoplasms		1	1	1		
Total Malignant Neoplasms		1	1	1		
Total Animals with Metastatic Neoplasms						
Total Metastatic Neoplasms						
Total Animals with Malignant Neoplasms Uncertain Primary Site						
Total Animals with Neoplasms Uncertain- Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 03

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 0.05 EE2 F

F1 0.50 EE2 F

F1 Veh. StDose F

F1 2.5 StDose F

F1 25.0 StDose F

F1 250.0StDose F

Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	6	4	4	2	3	6
Total Primary Neoplasms	6	5	4	2	3	6
Total Animals with Benign Neoplasms	4	4	4	2	2	4
Total Benign Neoplasms	4	5	4	2	2	4
Total Animals with Malignant Neoplasms	2				1	2
Total Malignant Neoplasms	2				1	2
Total Animals with Metastatic Neoplasms						
Total Metastatic Neoplasms						
Total Animals with Malignant Neoplasms Uncertain Primary Site						
Total Animals with Neoplasms Uncertain- Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 03

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 2500.StDose F

F1 25000StDose F

Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	1	3
Total Primary Neoplasms	1	5
Total Animals with Benign Neoplasms	1	2
Total Benign Neoplasms	1	2
Total Animals with Malignant Neoplasms		1
Total Malignant Neoplasms		3
Total Animals with Metastatic Neoplasms		1
Total Metastatic Neoplasms		1
Total Animals with Malignant Neoplasms Uncertain Primary Site		
Total Animals with Neoplasms Uncertain- Benign or Malignant		
Total Uncertain Neoplasms		

*** END OF REPORT ***

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 04

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

NTP Study Number: C10034
Lock Date: 08/16/2017
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: 09/29/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 Veh. Ctrl M

F1 2.5 BPA M

F1 25.0 BPA M

F1 250.0BPA M

F1 2500.BPA M

F1 25000BPA M

Disposition Summary

	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Animals Initially In Study	50	48	48	50	50	46
Early Deaths						
Moribund Sacrifice	20	13	21	17	18	23
Natural Death	10	13	3	11	7	8
Survivors						
Moribund Sacrifice	4	3	6	4	6	4
Natural Death	1	3	1	4	3	
Terminal Sacrifice	15	16	17	14	16	11
Animals Examined Microscopically	50	48	48	50	50	46

ALIMENTARY SYSTEM

Esophagus	(35)	(32)	(31)	(36)	(34)	(35)
Intestine Large, Cecum	(0)	(0)	(0)	(0)	(0)	(0)
Adenoma						
Intestine Large, Colon	(29)	(22)	(31)	(30)	(27)	(30)
Adenocarcinoma	1 (3%)		1 (3%)			
Adenoma					1 (4%)	
Intestine Large, Rectum	(0)	(0)	(0)	(0)	(0)	(2)
Leiomyosarcoma						1 (50%)
Intestine Small, Duodenum	(0)	(0)	(0)	(0)	(1)	(0)
Adenocarcinoma					1 (100%)	
Adenoma						
Intestine Small, Ileum	(26)	(17)	(27)	(24)	(25)	(28)
Intestine Small, Jejunum	(0)	(0)	(1)	(0)	(1)	(1)
Adenocarcinoma					1 (100%)	1 (100%)
Adenoma						
Liver	(50)	(47)	(48)	(50)	(50)	(45)
Fibrosarcoma, Metastatic, Skin				1 (2%)		
Hemangiosarcoma		1 (2%)		1 (2%)	1 (2%)	
Hepatocellular Adenoma	1 (2%)			2 (4%)	1 (2%)	
Hepatocellular Adenoma, Multiple			1 (2%)		1 (2%)	
Hepatocellular Carcinoma				2 (4%)	1 (2%)	3 (7%)
Lipoma				1 (2%)		

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Mesentery	(1)	(0)	(4)	(1)	(1)	(4)
Liposarcoma, Metastatic, Kidney						
Oral Mucosa	(1)	(0)	(1)	(0)	(1)	(0)
Fibrosarcoma					1 (100%)	
Squamous Cell Carcinoma	1 (100%)		1 (100%)			
Squamous Cell Papilloma						
Pancreas	(50)	(46)	(48)	(49)	(48)	(44)
Fibroma					1 (2%)	
Liposarcoma, Metastatic, Kidney						
Sarcoma, Metastatic, Spleen						
Acinar Cell, Adenoma	1 (2%)			1 (2%)		
Salivary Glands	(0)	(0)	(0)	(0)	(0)	(0)
Stomach, Forestomach	(36)	(31)	(33)	(36)	(32)	(34)
Squamous Cell Carcinoma						
Squamous Cell Papilloma	2 (6%)					
Stomach, Glandular	(34)	(30)	(33)	(32)	(33)	(33)
Adenoma						
Schwannoma Malignant						
Squamous Cell Papilloma			1 (3%)			
Tongue	(0)	(1)	(0)	(0)	(0)	(1)
Squamous Cell Papilloma						1 (100%)
CARDIOVASCULAR SYSTEM						
Blood Vessel	(50)	(48)	(48)	(50)	(50)	(46)
Heart	(50)	(48)	(48)	(50)	(50)	(46)
Schwannoma Malignant						
ENDOCRINE SYSTEM						
Adrenal Cortex	(50)	(48)	(48)	(50)	(48)	(45)
Adenoma	1 (2%)			1 (2%)	2 (4%)	
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Adrenal Medulla	(50)	(48)	(47)	(50)	(50)	(45)

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Test Type: CHRONIC

Bisphenol A

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First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Pheochromocytoma Benign	3 (6%)	3 (6%)	2 (4%)	3 (6%)	2 (4%)	
Pheochromocytoma Malignant	1 (2%)	1 (2%)	1 (2%)			1 (2%)
Bilateral, Pheochromocytoma Benign						
Bilateral, Pheochromocytoma Malignant	1 (2%)				1 (2%)	
Islets, Pancreatic	(50)	(46)	(48)	(48)	(49)	(45)
Adenoma	2 (4%)	3 (7%)	7 (15%)	1 (2%)	4 (8%)	5 (11%)
Carcinoma		3 (7%)				
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Parathyroid Gland	(49)	(46)	(47)	(50)	(50)	(46)
Adenoma						1 (2%)
Pituitary Gland	(48)	(48)	(48)	(50)	(50)	(45)
Craniopharyngioma						
Pars Distalis, Adenoma	21 (44%)	25 (52%)	23 (48%)	21 (42%)	21 (42%)	17 (38%)
Pars Distalis, Carcinoma					1 (2%)	
Pars Intermedia, Adenoma		1 (2%)	1 (2%)			
Thyroid Gland	(46)	(40)	(47)	(44)	(44)	(44)
C-cell, Adenoma					2 (5%)	
C-cell, Carcinoma		1 (3%)		1 (2%)		
Follicular Cell, Adenoma						
Follicular Cell, Carcinoma		1 (3%)	1 (2%)			
GENERAL BODY SYSTEM						
Peritoneum	(0)	(0)	(0)	(0)	(0)	(1)
Paraganglioma						1 (100%)
Tissue NOS	(2)	(0)	(0)	(0)	(1)	(1)
Sarcoma	1 (50%)					
Sarcoma, Metastatic, Uncertain Primary Site					1 (100%)	
GENITAL SYSTEM						
Bulbourethral Gland	(1)	(0)	(0)	(0)	(0)	(0)
Coagulating Gland	(47)	(46)	(47)	(49)	(46)	(45)
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Ductus Deferens	(0)	(0)	(1)	(0)	(0)	(0)

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Test Type: CHRONIC

Bisphenol A

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CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Epididymis	(49)	(48)	(48)	(50)	(50)	(46)
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Fat Pad, Epididymal	(2)	(2)	(0)	(1)	(3)	(1)
Lipoma				1 (100%)		
Sarcoma, Metastatic, Uncertain Primary Site					1 (33%)	
Preputial Gland	(15)	(15)	(15)	(13)	(16)	(9)
Adenoma						
Carcinoma	3 (20%)	2 (13%)	5 (33%)	5 (38%)	8 (50%)	3 (33%)
Carcinosarcoma						
Squamous Cell Carcinoma						
Squamous Cell Papilloma	1 (7%)	1 (7%)		1 (8%)	1 (6%)	
Bilateral, Carcinoma	1 (7%)					
Prostate, Dorsal/lateral Lobe	(50)	(48)	(48)	(50)	(50)	(46)
Adenocarcinoma						
Adenoma						1 (2%)
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Prostate, Ventral Lobe	(50)	(48)	(48)	(49)	(49)	(46)
Adenoma	6 (12%)	5 (10%)	2 (4%)	4 (8%)	2 (4%)	3 (7%)
Adenoma, Multiple		2 (4%)				3 (7%)
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Seminal Vesicle	(44)	(42)	(45)	(41)	(44)	(43)
Adenoma				1 (2%)		
Carcinosarcoma						
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Testes	(49)	(48)	(48)	(50)	(50)	(46)
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Seminoma Benign						
Seminoma Malignant		1 (2%)				
Interstitial Cell, Adenoma						
HEMATOPOIETIC SYSTEM						
Bone Marrow	(48)	(48)	(48)	(49)	(50)	(45)
Osteosarcoma, Metastatic, Bone, Femur						
Lymph Node	(15)	(9)	(13)	(15)	(16)	(11)

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Test Type: CHRONIC

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CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Lumbar, Carcinoma, Metastatic, Preputial Gland						
Lumbar, Sarcoma, Metastatic, Skin					1 (6%)	
Renal, Hemangioma					1 (6%)	
Lymph Node, Mandibular	(7)	(10)	(9)	(8)	(9)	(4)
Squamous Cell Carcinoma, Metastatic, Skin						
Lymph Node, Mesenteric	(0)	(1)	(1)	(1)	(2)	(3)
Spleen	(49)	(47)	(48)	(47)	(49)	(45)
Hemangiosarcoma					1 (2%)	
Liposarcoma						
Sarcoma		2 (4%)	1 (2%)			
Sarcoma, Metastatic, Uncertain Primary Site					1 (2%)	
Thymus	(50)	(46)	(46)	(49)	(49)	(43)

INTEGUMENTARY SYSTEM

Mammary Gland	(50)	(48)	(48)	(50)	(50)	(45)
Adenocarcinoma						
Adenocarcinoma, Multiple	1 (2%)					
Adenoma						
Fibroadenoma		1 (2%)	1 (2%)	2 (4%)	1 (2%)	1 (2%)
Fibroadenoma, Multiple		1 (2%)			1 (2%)	
Fibroma	2 (4%)				2 (4%)	
Fibroma, Multiple						1 (2%)
Lipoma						
Skin	(12)	(16)	(14)	(14)	(19)	(17)
Basal Cell Adenoma				1 (7%)		1 (6%)
Basal Cell Carcinoma						
Fibroma	1 (8%)					
Keratoacanthoma						
Pilomatrixoma	1 (8%)					
Squamous Cell Carcinoma		2 (13%)	1 (7%)			
Squamous Cell Papilloma		2 (13%)	1 (7%)	2 (14%)	2 (11%)	
Sebaceous Gland, Adenoma						1 (6%)
Subcutaneous Tissue, Fibroma		1 (6%)	1 (7%)	1 (7%)	1 (5%)	1 (6%)

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First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Subcutaneous Tissue, Fibrosarcoma			2 (14%)	1 (7%)		2 (12%)
Subcutaneous Tissue, Lipoma		1 (6%)	1 (7%)	1 (7%)	1 (5%)	
Subcutaneous Tissue, Myxosarcoma			1 (7%)			
Subcutaneous Tissue, Sarcoma		1 (6%)			1 (5%)	
Subcutaneous Tissue, Schwannoma Malignant						

MUSCULOSKELETAL SYSTEM

Bone	(1)	(0)	(1)	(2)	(2)	(1)
Cranium, Osteosarcoma					1 (50%)	
Mandible, Squamous Cell Carcinoma, Deep Invasion						
Rib, Osteosarcoma	1 (100%)					1 (100%)
Tibia, Osteosarcoma				1 (50%)		
Vertebra, Chordoma				1 (50%)		
Bone, Femur	(50)	(48)	(48)	(50)	(50)	(46)
Osteosarcoma						
Skeletal Muscle	(2)	(0)	(3)	(1)	(1)	(1)

NERVOUS SYSTEM

Brain, Brain Stem	(49)	(48)	(48)	(49)	(49)	(46)
Carcinoma, Deep Invasion					1 (2%)	
Granular Cell Tumor Benign		1 (2%)				
Granular Cell Tumor Malignant						
Brain, Cerebellum	(50)	(48)	(48)	(49)	(49)	(46)
Granular Cell Tumor Malignant						
Brain, Cerebrum	(50)	(48)	(48)	(49)	(49)	(46)
Granular Cell Tumor Benign				4 (8%)	1 (2%)	
Granular Cell Tumor Malignant	1 (2%)	1 (2%)				
Meningioma Benign						
Oligodendroglioma Malignant						
Sarcoma						
Nerve Trigeminal	(11)	(6)	(5)	(9)	(14)	(8)
Peripheral Nerve, Sciatic	(11)	(6)	(5)	(9)	(14)	(8)

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Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Peripheral Nerve, Tibial	(11)	(6)	(5)	(9)	(14)	(8)
Spinal Cord, Cervical	(11)	(6)	(5)	(8)	(14)	(8)
Spinal Cord, Lumbar	(11)	(6)	(5)	(8)	(14)	(8)
Spinal Cord, Thoracic	(11)	(6)	(5)	(8)	(14)	(8)
RESPIRATORY SYSTEM						
Lung	(38)	(39)	(34)	(38)	(35)	(36)
Alveolar/Bronchiolar Adenoma	1 (3%)					
Alveolar/Bronchiolar Carcinoma		1 (3%)				
Carcinoma, Metastatic, Zymbal'S Gland						
Chordoma, Metastatic, Bone				1 (3%)		
Neural Crest Tumor, Malignant, Metastatic, Ear						
Osteosarcoma, Metastatic, Bone, Femur						
Sarcoma						
Sarcoma, Metastatic, Tissue Nos						
Sarcoma, Metastatic, Uncertain Primary Site					1 (3%)	
Nose	(33)	(32)	(31)	(34)	(32)	(35)
Adenoma						
Sarcoma, Metastatic, Brain, Cerebrum						
Squamous Cell Carcinoma			1 (3%)		2 (6%)	
Trachea	(31)	(23)	(30)	(27)	(32)	(33)
SPECIAL SENSES SYSTEM						
Ear	(0)	(0)	(0)	(0)	(0)	(0)
Neural Crest Tumor, Benign						
Neural Crest Tumor, Malignant						
Eye	(4)	(1)	(0)	(1)	(1)	(1)
Lacrimal Gland	(0)	(0)	(0)	(0)	(0)	(0)
Zymbal's Gland	(2)	(0)	(3)	(0)	(1)	(1)
Adenoma			2 (67%)			1 (100%)
Carcinoma	1 (50%)		1 (33%)			

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

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Route: GAVAGE

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First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
URINARY SYSTEM						
Kidney	(50)	(48)	(48)	(50)	(50)	(45)
Adenoma, Tubular						
Lipoma	1 (2%)					
Liposarcoma						
Mesenchymal Tumor Malignant						
Oncocytoma Benign			1 (2%)			
Sarcoma, Metastatic, Spleen		1 (2%)				
Urinary Bladder	(4)	(1)	(3)	(5)	(4)	(3)
Transitional Epithelium, Carcinoma				1 (20%)		
Transitional Epithelium, Papilloma						1 (33%)
SYSTEMIC LESIONS						
Multiple Organ	*(50)	*(48)	*(48)	*(50)	*(50)	*(46)
Histiocytic Sarcoma	1 (2%)					2 (4%)
Leukemia Granulocytic	1 (2%)				1 (2%)	
Leukemia Mononuclear	1 (2%)		1 (2%)			
Lymphoma Malignant	2 (4%)	1 (2%)	3 (6%)	3 (6%)	3 (6%)	3 (7%)
Mesothelioma Malignant				2 (4%)		1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Test Type: CHRONIC

Bisphenol A

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CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 0.05 EE2 M

F1 0.50 EE2 M

F1 Veh. StDose M

F1 2.5 StDose M

F1 25.0 StDose M

F1 250.0StDose M

Disposition Summary

	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Animals Initially In Study	26	26	50	48	48	50
Early Deaths						
Moribund Sacrifice	12	8	16	17	19	25
Natural Death	3	3	10	9	4	5
Survivors						
Moribund Sacrifice	2	2	4	3	5	4
Natural Death		1	3	3	4	3
Terminal Sacrifice	9	12	17	16	16	13
Animals Examined Microscopically	26	26	50	48	48	50

ALIMENTARY SYSTEM

Esophagus	(17)	(14)	(32)	(32)	(32)	(37)
Intestine Large, Cecum	(0)	(0)	(1)	(1)	(1)	(0)
Adenoma					1 (100%)	
Intestine Large, Colon	(15)	(11)	(21)	(26)	(24)	(33)
Adenocarcinoma	1 (7%)		1 (5%)			
Adenoma			1 (5%)			
Intestine Large, Rectum	(0)	(0)	(0)	(0)	(0)	(0)
Leiomyosarcoma						
Intestine Small, Duodenum	(0)	(0)	(0)	(1)	(0)	(0)
Adenocarcinoma				1 (100%)		
Adenoma						
Intestine Small, Ileum	(14)	(10)	(20)	(22)	(24)	(31)
Intestine Small, Jejunum	(1)	(0)	(1)	(3)	(1)	(1)
Adenocarcinoma			1 (100%)	2 (67%)		1 (100%)
Adenoma				1 (33%)		
Liver	(26)	(25)	(50)	(48)	(48)	(50)
Fibrosarcoma, Metastatic, Skin						
Hemangiosarcoma						
Hepatocellular Adenoma		1 (4%)	1 (2%)	1 (2%)	2 (4%)	2 (4%)
Hepatocellular Adenoma, Multiple						
Hepatocellular Carcinoma		1 (4%)		1 (2%)	1 (2%)	2 (4%)
Lipoma						

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Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Sarcoma, Metastatic, Uncertain Primary Site						
Mesentery	(1)	(1)	(1)	(2)	(3)	(1)
Liposarcoma, Metastatic, Kidney				1 (50%)		
Oral Mucosa	(0)	(0)	(1)	(0)	(1)	(0)
Fibrosarcoma						
Squamous Cell Carcinoma					1 (100%)	
Squamous Cell Papilloma			1 (100%)			
Pancreas	(26)	(25)	(47)	(46)	(47)	(49)
Fibroma						
Liposarcoma, Metastatic, Kidney				1 (2%)		
Sarcoma, Metastatic, Spleen	1 (4%)					
Acinar Cell, Adenoma	1 (4%)	1 (4%)	1 (2%)	1 (2%)		
Salivary Glands	(0)	(0)	(0)	(0)	(0)	(1)
Stomach, Forestomach	(17)	(15)	(31)	(33)	(34)	(37)
Squamous Cell Carcinoma	1 (6%)					
Squamous Cell Papilloma			1 (3%)	1 (3%)		
Stomach, Glandular	(16)	(12)	(30)	(29)	(27)	(35)
Adenoma				1 (3%)		
Schwannoma Malignant						1 (3%)
Squamous Cell Papilloma						
Tongue	(0)	(0)	(0)	(0)	(0)	(1)
Squamous Cell Papilloma						
CARDIOVASCULAR SYSTEM						
Blood Vessel	(26)	(26)	(50)	(48)	(48)	(50)
Heart	(26)	(26)	(50)	(48)	(48)	(50)
Schwannoma Malignant				1 (2%)		
ENDOCRINE SYSTEM						
Adrenal Cortex	(26)	(26)	(47)	(47)	(48)	(49)
Adenoma	1 (4%)			2 (4%)	1 (2%)	
Sarcoma, Metastatic, Uncertain Primary Site						
Adrenal Medulla	(26)	(26)	(47)	(46)	(48)	(49)

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Test Type: CHRONIC

Bisphenol A

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First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Pheochromocytoma Benign	1 (4%)		4 (9%)	2 (4%)	5 (10%)	5 (10%)
Pheochromocytoma Malignant			1 (2%)	1 (2%)		
Bilateral, Pheochromocytoma Benign	1 (4%)	1 (4%)		1 (2%)	1 (2%)	
Bilateral, Pheochromocytoma Malignant						
Islets, Pancreatic	(26)	(26)	(48)	(47)	(48)	(48)
Adenoma			4 (8%)	4 (9%)	2 (4%)	4 (8%)
Carcinoma				1 (2%)	2 (4%)	
Sarcoma, Metastatic, Uncertain Primary Site						
Parathyroid Gland	(25)	(25)	(49)	(46)	(46)	(49)
Adenoma		1 (4%)	1 (2%)			
Pituitary Gland	(26)	(26)	(46)	(48)	(48)	(49)
Craniopharyngioma						
Pars Distalis, Adenoma	12 (46%)	6 (23%)	29 (63%)	22 (46%)	19 (40%)	19 (39%)
Pars Distalis, Carcinoma					1 (2%)	
Pars Intermedia, Adenoma				1 (2%)		
Thyroid Gland	(25)	(25)	(43)	(45)	(44)	(45)
C-cell, Adenoma				1 (2%)		
C-cell, Carcinoma			1 (2%)			
Follicular Cell, Adenoma	1 (4%)			1 (2%)		
Follicular Cell, Carcinoma						

GENERAL BODY SYSTEM

Peritoneum	(0)	(0)	(0)	(0)	(0)	(0)
Paraganglioma						
Tissue NOS	(0)	(1)	(0)	(1)	(0)	(1)
Sarcoma						1 (100%)
Sarcoma, Metastatic, Uncertain Primary Site						

GENITAL SYSTEM

Bulbourethral Gland	(0)	(0)	(0)	(1)	(0)	(0)
Coagulating Gland	(26)	(25)	(45)	(45)	(44)	(50)
Sarcoma, Metastatic, Uncertain Primary Site						
Ductus Deferens	(0)	(1)	(0)	(0)	(0)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Epididymis	(26)	(26)	(49)	(48)	(48)	(50)
Sarcoma, Metastatic, Uncertain Primary Site						
Fat Pad, Epididymal	(0)	(0)	(0)	(0)	(0)	(4)
Lipoma						
Sarcoma, Metastatic, Uncertain Primary Site						
Preputial Gland	(4)	(6)	(14)	(16)	(17)	(19)
Adenoma		1 (17%)			1 (6%)	
Carcinoma	4 (100%)	1 (17%)	6 (43%)	3 (19%)	4 (24%)	6 (32%)
Carcinosarcoma						
Squamous Cell Carcinoma						
Squamous Cell Papilloma				1 (6%)		1 (5%)
Bilateral, Carcinoma				2 (13%)		
Prostate, Dorsal/lateral Lobe	(26)	(25)	(46)	(48)	(48)	(50)
Adenocarcinoma					1 (2%)	
Adenoma						
Sarcoma, Metastatic, Uncertain Primary Site						
Prostate, Ventral Lobe	(26)	(26)	(48)	(47)	(47)	(50)
Adenoma	1 (4%)	2 (8%)	3 (6%)	2 (4%)	3 (6%)	1 (2%)
Adenoma, Multiple	1 (4%)		1 (2%)	2 (4%)	1 (2%)	1 (2%)
Sarcoma, Metastatic, Uncertain Primary Site						
Seminal Vesicle	(25)	(23)	(39)	(43)	(41)	(47)
Adenoma						
Carcinosarcoma						
Sarcoma, Metastatic, Uncertain Primary Site						
Testes	(26)	(26)	(49)	(48)	(48)	(50)
Sarcoma, Metastatic, Uncertain Primary Site						
Seminoma Benign				1 (2%)		
Seminoma Malignant						
Interstitial Cell, Adenoma	1 (4%)		1 (2%)		1 (2%)	

HEMATOPOIETIC SYSTEM

Bone Marrow	(26)	(25)	(47)	(47)	(46)	(50)
Osteosarcoma, Metastatic, Bone, Femur						
Lymph Node	(7)	(6)	(16)	(17)	(15)	(15)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Lumbar, Carcinoma, Metastatic, Preputial Gland					1 (7%)	
Lumbar, Sarcoma, Metastatic, Skin						
Renal, Hemangioma						
Lymph Node, Mandibular	(6)	(7)	(8)	(8)	(14)	(9)
Squamous Cell Carcinoma, Metastatic, Skin			1 (13%)		1 (7%)	
Lymph Node, Mesenteric	(0)	(1)	(1)	(2)	(1)	(2)
Spleen	(26)	(25)	(47)	(47)	(47)	(49)
Hemangiosarcoma						
Liposarcoma				1 (2%)		
Sarcoma	2 (8%)			1 (2%)	1 (2%)	
Sarcoma, Metastatic, Uncertain Primary Site						
Thymus	(24)	(25)	(48)	(48)	(46)	(47)

INTEGUMENTARY SYSTEM

Mammary Gland	(25)	(25)	(49)	(48)	(47)	(50)
Adenocarcinoma		1 (4%)				
Adenocarcinoma, Multiple						
Adenoma						
Fibroadenoma			1 (2%)	1 (2%)	1 (2%)	1 (2%)
Fibroadenoma, Multiple						
Fibroma		2 (8%)	1 (2%)			1 (2%)
Fibroma, Multiple						
Lipoma		1 (4%)				
Skin	(6)	(7)	(21)	(18)	(24)	(15)
Basal Cell Adenoma		1 (14%)	1 (5%)	1 (6%)	1 (4%)	
Basal Cell Carcinoma		1 (14%)				1 (7%)
Fibroma			1 (5%)			
Keratoacanthoma					1 (4%)	
Pilomatrixoma						
Squamous Cell Carcinoma			2 (10%)		1 (4%)	
Squamous Cell Papilloma		1 (14%)	3 (14%)		4 (17%)	1 (7%)
Sebaceous Gland, Adenoma				1 (6%)		
Subcutaneous Tissue, Fibroma			1 (5%)	5 (28%)	2 (8%)	

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

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First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Subcutaneous Tissue, Fibrosarcoma			1 (5%)			1 (7%)
Subcutaneous Tissue, Lipoma		2 (29%)	2 (10%)		2 (8%)	
Subcutaneous Tissue, Myxosarcoma						
Subcutaneous Tissue, Sarcoma						
Subcutaneous Tissue, Schwannoma Malignant			1 (5%)		1 (4%)	2 (13%)
MUSCULOSKELETAL SYSTEM						
Bone	(1)	(1)	(3)	(0)	(1)	(1)
Cranium, Osteosarcoma						
Mandible, Squamous Cell Carcinoma, Deep Invasion			1 (33%)			
Rib, Osteosarcoma						
Tibia, Osteosarcoma						
Vertebra, Chordoma						
Bone, Femur	(26)	(26)	(50)	(48)	(48)	(50)
Osteosarcoma						
Skeletal Muscle	(2)	(0)	(1)	(1)	(1)	(2)
NERVOUS SYSTEM						
Brain, Brain Stem	(26)	(26)	(50)	(48)	(47)	(50)
Carcinoma, Deep Invasion					1 (2%)	
Granular Cell Tumor Benign						
Granular Cell Tumor Malignant					1 (2%)	1 (2%)
Brain, Cerebellum	(26)	(26)	(49)	(48)	(48)	(50)
Granular Cell Tumor Malignant		1 (4%)	1 (2%)			
Brain, Cerebrum	(26)	(26)	(49)	(48)	(48)	(50)
Granular Cell Tumor Benign				1 (2%)		1 (2%)
Granular Cell Tumor Malignant	1 (4%)				1 (2%)	1 (2%)
Meningioma Benign		1 (4%)				
Oligodendroglioma Malignant						
Sarcoma						
Nerve Trigeminal	(4)	(3)	(2)	(0)	(2)	(6)
Peripheral Nerve, Sciatic	(4)	(3)	(2)	(0)	(2)	(6)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Peripheral Nerve, Tibial	(4)	(3)	(2)	(0)	(2)	(6)
Spinal Cord, Cervical	(4)	(3)	(2)	(0)	(2)	(6)
Spinal Cord, Lumbar	(4)	(3)	(2)	(0)	(2)	(6)
Spinal Cord, Thoracic	(4)	(3)	(2)	(0)	(2)	(6)

RESPIRATORY SYSTEM

Lung	(19)	(13)	(36)	(33)	(39)	(40)
Alveolar/Bronchiolar Adenoma						
Alveolar/Bronchiolar Carcinoma						
Carcinoma, Metastatic, Zymbal'S Gland	1 (5%)					
Chordoma, Metastatic, Bone						
Neural Crest Tumor, Malignant, Metastatic, Ear						1 (3%)
Osteosarcoma, Metastatic, Bone, Femur						
Sarcoma						
Sarcoma, Metastatic, Tissue Nos						
Sarcoma, Metastatic, Uncertain Primary Site						
Nose	(17)	(12)	(30)	(32)	(31)	(37)
Adenoma						
Sarcoma, Metastatic, Brain, Cerebrum						
Squamous Cell Carcinoma					2 (6%)	
Trachea	(17)	(12)	(27)	(26)	(27)	(32)

SPECIAL SENSES SYSTEM

Ear	(1)	(0)	(0)	(0)	(0)	(1)
Neural Crest Tumor, Benign	1 (100%)					
Neural Crest Tumor, Malignant						1 (100%)
Eye	(3)	(2)	(2)	(1)	(2)	(1)
Lacrimal Gland	(0)	(0)	(0)	(1)	(0)	(0)
Zymbal's Gland	(1)	(1)	(0)	(2)	(1)	(1)
Adenoma					1 (100%)	1 (100%)
Carcinoma	1 (100%)	1 (100%)		1 (50%)		

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
URINARY SYSTEM						
Kidney	(26)	(26)	(50)	(48)	(48)	(50)
Adenoma, Tubular			1 (2%)			
Lipoma				1 (2%)		
Liposarcoma	1 (4%)			2 (4%)	1 (2%)	1 (2%)
Mesenchymal Tumor Malignant				1 (2%)		
Oncocytoma Benign						
Sarcoma, Metastatic, Spleen						
Urinary Bladder	(1)	(0)	(6)	(1)	(4)	(4)
Transitional Epithelium, Carcinoma						
Transitional Epithelium, Papilloma						
SYSTEMIC LESIONS						
Multiple Organ	*(26)	*(26)	*(50)	*(48)	*(48)	*(50)
Histiocytic Sarcoma		1 (4%)				1 (2%)
Leukemia Granulocytic				1 (2%)	1 (2%)	
Leukemia Mononuclear			1 (2%)		2 (4%)	
Lymphoma Malignant	2 (8%)	1 (4%)	1 (2%)		1 (2%)	3 (6%)
Mesothelioma Malignant				1 (2%)		

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 2500.StDose M

F1 25000StDose M

Disposition Summary

Animals Initially In Study	50	46
Early Deaths		
Moribund Sacrifice	17	26
Natural Death	7	6
Survivors		
Moribund Sacrifice	10	3
Natural Death	1	2
Terminal Sacrifice	15	9
Animals Examined Microscopically	50	46

ALIMENTARY SYSTEM

Esophagus	(35)	(36)
Intestine Large, Cecum	(1)	(0)
Adenoma		
Intestine Large, Colon	(29)	(31)
Adenocarcinoma		
Adenoma		
Intestine Large, Rectum	(0)	(0)
Leiomyosarcoma		
Intestine Small, Duodenum	(0)	(1)
Adenocarcinoma		
Adenoma		1 (100%)
Intestine Small, Ileum	(26)	(30)
Intestine Small, Jejunum	(0)	(2)
Adenocarcinoma		
Adenoma		
Liver	(50)	(46)
Fibrosarcoma, Metastatic, Skin		
Hemangiosarcoma		
Hepatocellular Adenoma	1 (2%)	
Hepatocellular Adenoma, Multiple		
Hepatocellular Carcinoma		1 (2%)
Lipoma		

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Sarcoma, Metastatic, Uncertain Primary Site		
Mesentery	(1)	(2)
Liposarcoma, Metastatic, Kidney		
Oral Mucosa	(1)	(0)
Fibrosarcoma		
Squamous Cell Carcinoma	1 (100%)	
Squamous Cell Papilloma		
Pancreas	(50)	(44)
Fibroma		
Liposarcoma, Metastatic, Kidney		
Sarcoma, Metastatic, Spleen		
Acinar Cell, Adenoma	1 (2%)	1 (2%)
Salivary Glands	(0)	(0)
Stomach, Forestomach	(34)	(37)
Squamous Cell Carcinoma		
Squamous Cell Papilloma		
Stomach, Glandular	(33)	(36)
Adenoma		
Schwannoma Malignant		
Squamous Cell Papilloma		
Tongue	(0)	(0)
Squamous Cell Papilloma		

CARDIOVASCULAR SYSTEM

Blood Vessel	(50)	(46)
Heart	(50)	(46)
Schwannoma Malignant	1 (2%)	

ENDOCRINE SYSTEM

Adrenal Cortex	(50)	(44)
Adenoma	1 (2%)	
Sarcoma, Metastatic, Uncertain Primary Site		
Adrenal Medulla	(50)	(44)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Pheochromocytoma Benign		4 (9%)
Pheochromocytoma Malignant		
Bilateral, Pheochromocytoma Benign		
Bilateral, Pheochromocytoma Malignant		
Islets, Pancreatic	(50)	(44)
Adenoma	1 (2%)	4 (9%)
Carcinoma	2 (4%)	
Sarcoma, Metastatic, Uncertain Primary Site		
Parathyroid Gland	(50)	(43)
Adenoma		
Pituitary Gland	(50)	(43)
Craniopharyngioma		1 (2%)
Pars Distalis, Adenoma	19 (38%)	17 (40%)
Pars Distalis, Carcinoma		
Pars Intermedia, Adenoma		
Thyroid Gland	(48)	(42)
C-cell, Adenoma	1 (2%)	3 (7%)
C-cell, Carcinoma	1 (2%)	
Follicular Cell, Adenoma	1 (2%)	
Follicular Cell, Carcinoma		

GENERAL BODY SYSTEM

Peritoneum	(0)	(0)
Paraganglioma		
Tissue NOS	(0)	(1)
Sarcoma		1 (100%)
Sarcoma, Metastatic, Uncertain Primary Site		

GENITAL SYSTEM

Bulbourethral Gland	(0)	(0)
Coagulating Gland	(48)	(44)
Sarcoma, Metastatic, Uncertain Primary Site		
Ductus Deferens	(0)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

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Route: GAVAGE

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Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Epididymis	(50)	(46)
Sarcoma, Metastatic, Uncertain Primary Site		
Fat Pad, Epididymal	(0)	(0)
Lipoma		
Sarcoma, Metastatic, Uncertain Primary Site		
Preputial Gland	(15)	(12)
Adenoma		2 (17%)
Carcinoma	4 (27%)	3 (25%)
Carcinosarcoma		1 (8%)
Squamous Cell Carcinoma		1 (8%)
Squamous Cell Papilloma		
Bilateral, Carcinoma	1 (7%)	1 (8%)
Prostate, Dorsal/lateral Lobe	(49)	(45)
Adenocarcinoma		
Adenoma		
Sarcoma, Metastatic, Uncertain Primary Site		
Prostate, Ventral Lobe	(49)	(45)
Adenoma	2 (4%)	4 (9%)
Adenoma, Multiple	2 (4%)	2 (4%)
Sarcoma, Metastatic, Uncertain Primary Site		
Seminal Vesicle	(48)	(42)
Adenoma		
Carcinosarcoma	1 (2%)	
Sarcoma, Metastatic, Uncertain Primary Site		
Testes	(49)	(45)
Sarcoma, Metastatic, Uncertain Primary Site		
Seminoma Benign		
Seminoma Malignant	1 (2%)	
Interstitial Cell, Adenoma	1 (2%)	1 (2%)

HEMATOPOIETIC SYSTEM

Bone Marrow	(49)	(45)
Osteosarcoma, Metastatic, Bone, Femur		1 (2%)
Lymph Node	(27)	(16)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Lumbar, Carcinoma, Metastatic, Preputial Gland		
Lumbar, Sarcoma, Metastatic, Skin		
Renal, Hemangioma		
Lymph Node, Mandibular	(13)	(15)
Squamous Cell Carcinoma, Metastatic, Skin		
Lymph Node, Mesenteric	(2)	(3)
Spleen	(49)	(45)
Hemangiosarcoma		
Liposarcoma		
Sarcoma		
Sarcoma, Metastatic, Uncertain Primary Site		
Thymus	(48)	(42)

INTEGUMENTARY SYSTEM

Mammary Gland	(49)	(45)
Adenocarcinoma		
Adenocarcinoma, Multiple		
Adenoma	1 (2%)	
Fibroadenoma	3 (6%)	1 (2%)
Fibroadenoma, Multiple		
Fibroma		1 (2%)
Fibroma, Multiple		
Lipoma		
Skin	(17)	(16)
Basal Cell Adenoma	1 (6%)	
Basal Cell Carcinoma		
Fibroma		1 (6%)
Keratoacanthoma		
Pilomatrixoma		
Squamous Cell Carcinoma	1 (6%)	
Squamous Cell Papilloma	4 (24%)	1 (6%)
Sebaceous Gland, Adenoma		
Subcutaneous Tissue, Fibroma	3 (18%)	

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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Subcutaneous Tissue, Fibrosarcoma

Subcutaneous Tissue, Lipoma

1 (6%)

1 (6%)

Subcutaneous Tissue, Myxosarcoma

Subcutaneous Tissue, Sarcoma

1 (6%)

1 (6%)

Subcutaneous Tissue, Schwannoma Malignant

MUSCULOSKELETAL SYSTEM

Bone

(2)

(1)

Cranium, Osteosarcoma

Mandible, Squamous Cell Carcinoma, Deep
Invasion

Rib, Osteosarcoma

Tibia, Osteosarcoma

Vertebra, Chordoma

Bone, Femur

(50)

(46)

Osteosarcoma

1 (2%)

Skeletal Muscle

(2)

(3)

NERVOUS SYSTEM

Brain, Brain Stem

(50)

(46)

Carcinoma, Deep Invasion

Granular Cell Tumor Benign

Granular Cell Tumor Malignant

Brain, Cerebellum

(50)

(46)

Granular Cell Tumor Malignant

Brain, Cerebrum

(50)

(46)

Granular Cell Tumor Benign

Granular Cell Tumor Malignant

Meningioma Benign

1 (2%)

Oligodendroglioma Malignant

1 (2%)

Sarcoma

1 (2%)

Nerve Trigeminal

(8)

(3)

Peripheral Nerve, Sciatic

(8)

(3)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Peripheral Nerve, Tibial	(8)	(3)
Spinal Cord, Cervical	(8)	(3)
Spinal Cord, Lumbar	(8)	(3)
Spinal Cord, Thoracic	(8)	(3)

RESPIRATORY SYSTEM

Lung	(41)	(38)
Alveolar/Bronchiolar Adenoma		
Alveolar/Bronchiolar Carcinoma		
Carcinoma, Metastatic, Zymbal'S Gland		
Chordoma, Metastatic, Bone		
Neural Crest Tumor, Malignant, Metastatic, Ear		
Osteosarcoma, Metastatic, Bone, Femur		1 (3%)
Sarcoma		1 (3%)
Sarcoma, Metastatic, Tissue Nos		1 (3%)
Sarcoma, Metastatic, Uncertain Primary Site		
Nose	(34)	(37)
Adenoma		1 (3%)
Sarcoma, Metastatic, Brain, Cerebrum		1 (3%)
Squamous Cell Carcinoma	1 (3%)	
Trachea	(33)	(33)

SPECIAL SENSES SYSTEM

Ear	(0)	(0)
Neural Crest Tumor, Benign		
Neural Crest Tumor, Malignant		
Eye	(1)	(1)
Lacrimal Gland	(0)	(0)
Zymbal's Gland	(0)	(1)
Adenoma		
Carcinoma		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 2500.StDose M

F1 25000StDose M

URINARY SYSTEM

Kidney	(50)	(45)
Adenoma, Tubular		
Lipoma	1 (2%)	
Liposarcoma		
Mesenchymal Tumor Malignant		
Oncocytoma Benign		
Sarcoma, Metastatic, Spleen		
Urinary Bladder	(3)	(4)
Transitional Epithelium, Carcinoma		
Transitional Epithelium, Papilloma		

SYSTEMIC LESIONS

Multiple Organ	*(50)	*(46)
Histiocytic Sarcoma	1 (2%)	
Leukemia Granulocytic		1 (2%)
Leukemia Mononuclear		
Lymphoma Malignant	2 (4%)	5 (11%)
Mesothelioma Malignant		1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 04

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
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Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	39	36	41	40	40	32
Total Primary Neoplasms	62	65	64	66	73	57
Total Animals with Benign Neoplasms	31	29	31	32	28	27
Total Benign Neoplasms	43	47	44	48	48	39
Total Animals with Malignant Neoplasms	16	14	18	15	23	15
Total Malignant Neoplasms	18	18	20	18	25	18
Total Animals with Metastatic Neoplasms		1		2	2	1
Total Metastatic Neoplasms		1		2	14	1
Total Animals with Malignant Neoplasms Uncertain Primary Site					1	
Total Animals with Neoplasms Uncertain- Benign or Malignant	1					
Total Uncertain Neoplasms	1					

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 04

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 0.05 EE2 M

F1 0.50 EE2 M

F1 Veh. StDose M

F1 2.5 StDose M

F1 25.0 StDose M

F1 250.0StDose M

Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	19	16	41	39	37	38
Total Primary Neoplasms	34	29	77	75	72	61
Total Animals with Benign Neoplasms	13	13	39	34	27	24
Total Benign Neoplasms	20	21	59	55	49	38
Total Animals with Malignant Neoplasms	11	7	15	17	17	21
Total Malignant Neoplasms	14	8	18	20	23	23
Total Animals with Metastatic Neoplasms	2		1	1	2	1
Total Metastatic Neoplasms	2		1	2	2	1
Total Animals with Malignant Neoplasms Uncertain Primary Site						
Total Animals with Neoplasms Uncertain- Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 04

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 2500.StDose M

F1 25000StDose M

Tumor Summary for Males

Total Animals with Primary Neoplasms (b)	33	35
Total Primary Neoplasms	63	66
Total Animals with Benign Neoplasms	28	25
Total Benign Neoplasms	45	46
Total Animals with Malignant Neoplasms	16	20
Total Malignant Neoplasms	18	20
Total Animals with Metastatic Neoplasms		3
Total Metastatic Neoplasms		4
Total Animals with Malignant Neoplasms Uncertain Primary Site		
Total Animals with Neoplasms Uncertain- Benign or Malignant		
Total Uncertain Neoplasms		

*** END OF MALE ***

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 Veh. Ctrl F

F1 2.5 BPA F

F1 25.0 BPA F

F1 250.0BPA F

F1 2500.BPA F

F1 25000BPA F

Disposition Summary

	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Animals Initially In Study	50	48	46	49	50	46
Early Deaths						
Moribund Sacrifice	25	22	28	23	28	27
Natural Death	3	1	1	5	5	1
Survivors						
Moribund Sacrifice	3	6	3	8	5	8
Natural Death	3				2	2
Terminal Sacrifice	16	19	14	13	10	8
Animals Examined Microscopically	50	48	46	49	50	46

ALIMENTARY SYSTEM

Esophagus	(34)	(29)	(32)	(36)	(40)	(38)
Intestine Large, Cecum	(1)	(0)	(1)	(0)	(0)	(0)
Intestine Large, Colon	(31)	(30)	(31)	(32)	(34)	(38)
Adenocarcinoma						
Adenocarcinoma, Metastatic, Uterus						1 (3%)
Intestine Small, Duodenum	(0)	(0)	(0)	(0)	(0)	(0)
Intestine Small, Ileum	(29)	(29)	(31)	(32)	(32)	(37)
Adenocarcinoma, Metastatic, Uterus						1 (3%)
Intestine Small, Jejunum	(3)	(0)	(2)	(1)	(1)	(0)
Adenocarcinoma			1 (50%)	1 (100%)		
Leiomyoma	1 (33%)					
Leiomyosarcoma	1 (33%)					
Liver	(50)	(48)	(46)	(49)	(50)	(46)
Adenocarcinoma, Metastatic, Uterus						1 (2%)
Fibrosarcoma, Metastatic, Skin						
Hepatocellular Adenoma				1 (2%)	1 (2%)	
Sarcoma, Metastatic, Spleen				1 (2%)		
Sarcoma, Metastatic, Uncertain Primary Site						
Yolk Sac Carcinoma, Metastatic, Ovary				1 (2%)		
Mesentery	(2)	(0)	(3)	(3)	(4)	(3)
Adenocarcinoma, Metastatic, Uterus						1 (33%)
Hemangiosarcoma						

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Sarcoma, Metastatic, Uncertain Primary Site						
Yolk Sac Carcinoma, Metastatic, Ovary				1 (33%)		
Oral Mucosa	(0)	(0)	(0)	(0)	(0)	(0)
Squamous Cell Papilloma						
Pancreas	(50)	(48)	(46)	(49)	(49)	(46)
Adenocarcinoma, Metastatic, Uterus						1 (2%)
Yolk Sac Carcinoma, Metastatic, Ovary				1 (2%)		
Acinar Cell, Adenoma						
Stomach, Forestomach	(34)	(29)	(34)	(36)	(39)	(39)
Adenocarcinoma, Metastatic, Uterus						1 (3%)
Squamous Cell Carcinoma						
Squamous Cell Papilloma			1 (3%)			
Stomach, Glandular	(34)	(29)	(31)	(35)	(36)	(38)
Adenocarcinoma, Metastatic, Uterus						1 (3%)
Tongue	(0)	(0)	(0)	(0)	(0)	(0)
CARDIOVASCULAR SYSTEM						
Blood Vessel	(50)	(48)	(46)	(49)	(50)	(46)
Heart	(50)	(48)	(46)	(49)	(50)	(46)
Fibrosarcoma, Metastatic, Skin						
Schwannoma Benign	1 (2%)	1 (2%)				
Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site			1 (2%)			
ENDOCRINE SYSTEM						
Adrenal Cortex	(50)	(48)	(45)	(49)	(49)	(46)
Adenoma	1 (2%)	1 (2%)		3 (6%)		2 (4%)
Fibrosarcoma, Metastatic, Skin						
Bilateral, Adenoma						
Adrenal Medulla	(50)	(48)	(46)	(49)	(49)	(46)
Pheochromocytoma Benign		1 (2%)		1 (2%)		2 (4%)
Pheochromocytoma Malignant		1 (2%)			1 (2%)	
Islets, Pancreatic	(50)	(48)	(46)	(49)	(49)	(46)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Adenoma	2 (4%)	1 (2%)			2 (4%)	
Carcinoma			1 (2%)			
Parathyroid Gland	(50)	(48)	(45)	(47)	(50)	(45)
Adenoma			1 (2%)			
Carcinoma, Deep Invasion						
Pituitary Gland	(50)	(48)	(46)	(49)	(49)	(46)
Pars Distalis, Adenoma	21 (42%)	22 (46%)	12 (26%)	20 (41%)	19 (39%)	21 (46%)
Pars Distalis, Carcinoma	1 (2%)	1 (2%)				
Pars Intermedia, Adenoma				1 (2%)		
Thyroid Gland	(50)	(48)	(46)	(49)	(50)	(46)
C-cell, Adenoma			1 (2%)			2 (4%)
C-cell, Carcinoma		1 (2%)				
Follicular Cell, Carcinoma	1 (2%)					

GENERAL BODY SYSTEM

Tissue NOS	(0)	(1)	(0)	(1)	(1)	(0)
Fibrosarcoma, Metastatic, Clitoral Gland		1 (100%)				
Fibrosarcoma, Metastatic, Skin						
Leiomyosarcoma					1 (100%)	
Lipoma						
Sarcoma						

GENITAL SYSTEM

Clitoral Gland	(7)	(7)	(6)	(7)	(8)	(13)
Adenoma						2 (15%)
Carcinoma	1 (14%)	1 (14%)	1 (17%)	1 (14%)	4 (50%)	1 (8%)
Fibrosarcoma		1 (14%)		1 (14%)		
Squamous Cell Papilloma						
Fat Pad, Ovarian/parametrial	(1)	(0)	(0)	(1)	(1)	(1)
Adenocarcinoma, Metastatic, Uterus						1 (100%)
Ovary	(50)	(48)	(46)	(49)	(50)	(46)
Adenocarcinoma, Metastatic, Uterus						1 (2%)
Fibrosarcoma, Metastatic, Skin						

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Granulosa Cell Tumor Benign	1 (2%)			1 (2%)		
Granulosa Cell Tumor Malignant	1 (2%)					
Sarcoma, Metastatic, Uncertain Primary Site						
Sex Cord Stromal Tumor, Benign						
Thecoma Benign		1 (2%)				
Thecoma Malignant						
Tubulostromal Adenoma						
Yolk Sac Carcinoma				1 (2%)		
Oviduct	(47)	(48)	(46)	(48)	(47)	(46)
Uterus	(50)	(48)	(45)	(49)	(48)	(46)
Polyp Stromal	5 (10%)	3 (6%)	7 (16%)	2 (4%)	4 (8%)	3 (7%)
Polyp Stromal, Multiple						
Sarcoma						
Schwannoma Malignant						
Yolk Sac Carcinoma, Metastatic, Ovary				1 (2%)		
Cervix, Polyp Stromal						
Cervix, Squamous Cell Carcinoma						
Endometrium, Adenocarcinoma		1 (2%)			1 (2%)	2 (4%)
Endometrium, Adenoma	2 (4%)					
Endothelium, Adenoma						
Vagina	(49)	(48)	(45)	(49)	(50)	(46)
Sarcoma Stromal						
Epithelium, Squamous Cell Carcinoma		1 (2%)				
HEMATOPOIETIC SYSTEM						
Bone Marrow	(50)	(48)	(46)	(49)	(49)	(46)
Lymph Node	(12)	(9)	(6)	(8)	(4)	(6)
Mediastinal, Adenocarcinoma, Metastatic, Uterus						1 (17%)
Mediastinal, Fibrosarcoma, Metastatic, Skin						
Lymph Node, Mandibular	(5)	(0)	(4)	(2)	(4)	(6)
Lymph Node, Mesenteric	(2)	(1)	(2)	(0)	(0)	(2)
Spleen	(50)	(48)	(46)	(49)	(50)	(46)
Adenocarcinoma, Metastatic, Uterus						1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Fibrosarcoma, Metastatic, Skin Sarcoma				1 (2%)		
Thymoma Malignant, Metastatic, Thymus Yolk Sac Carcinoma, Metastatic, Ovary				1 (2%)		
Thymus	(50)	(48)	(44)	(49)	(49)	(45)
Squamous Cell Carcinoma						
Thymoma Benign	1 (2%)					
Epithelial Cell, Thymoma Malignant	1 (2%)					

INTEGUMENTARY SYSTEM

Mammary Gland	(50)	(48)	(46)	(49)	(50)	(46)
Adenocarcinoma	2 (4%)	3 (6%)	3 (7%)	3 (6%)	6 (12%)	1 (2%)
Adenocarcinoma, Multiple	2 (4%)	3 (6%)	3 (7%)	2 (4%)	3 (6%)	1 (2%)
Adenoma	2 (4%)	1 (2%)	2 (4%)		2 (4%)	1 (2%)
Adenoma, Multiple				1 (2%)		
Adenosquamous Carcinoma						1 (2%)
Carcinosarcoma	1 (2%)					
Fibroadenoma	20 (40%)	8 (17%)	13 (28%)	7 (14%)	14 (28%)	7 (15%)
Fibroadenoma, Multiple	21 (42%)	32 (67%)	20 (43%)	32 (65%)	21 (42%)	31 (67%)
Fibroma						
Fibrosarcoma, Metastatic, Skin						
Hemangiosarcoma					1 (2%)	
Mixed Tumor Benign	1 (2%)					
Sarcoma						
Skin	(17)	(12)	(14)	(12)	(13)	(17)
Basal Cell Adenoma	1 (6%)	1 (8%)				
Basal Cell Carcinoma						
Squamous Cell Papilloma	1 (6%)			1 (8%)		1 (6%)
Subcutaneous Tissue, Fibroma						
Subcutaneous Tissue, Fibrosarcoma		1 (8%)			1 (8%)	1 (6%)
Subcutaneous Tissue, Lipoma			2 (14%)	1 (8%)		

MUSCULOSKELETAL SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Bone	(1)	(0)	(0)	(0)	(1)	(0)
Vertebra, Adenocarcinoma, Metastatic, Uterus						
Bone, Femur	(50)	(48)	(46)	(49)	(50)	(46)
Skeletal Muscle	(1)	(1)	(2)	(1)	(1)	(1)
Adenocarcinoma, Metastatic, Uterus						1 (100%)
Rhabdomyosarcoma						
NERVOUS SYSTEM						
Brain, Brain Stem	(50)	(48)	(46)	(49)	(50)	(46)
Carcinoma, Deep Invasion	1 (2%)	1 (2%)				
Glioma Malignant			1 (2%)			
Oligodendroglioma Malignant		1 (2%)				
Brain, Cerebellum	(50)	(48)	(46)	(49)	(50)	(46)
Glioma Malignant			1 (2%)			
Brain, Cerebrum	(50)	(48)	(46)	(49)	(50)	(46)
Glioma Malignant			1 (2%)	1 (2%)		
Granular Cell Tumor Benign						
Oligodendroglioma Malignant		1 (2%)				
Nerve Trigeminal	(7)	(12)	(2)	(12)	(11)	(6)
Peripheral Nerve, Sciatic	(7)	(12)	(2)	(12)	(11)	(6)
Peripheral Nerve, Tibial	(7)	(12)	(2)	(12)	(11)	(6)
Spinal Cord, Cervical	(7)	(11)	(2)	(12)	(10)	(6)
Spinal Cord, Lumbar	(7)	(12)	(2)	(12)	(10)	(6)
Spinal Cord, Thoracic	(7)	(11)	(2)	(12)	(10)	(6)
RESPIRATORY SYSTEM						
Lung	(38)	(32)	(34)	(39)	(44)	(42)
Adenocarcinoma, Metastatic, Uterus						1 (2%)
Alveolar/Bronchiolar Adenoma			1 (3%)			
Carcinosarcoma, Metastatic, Mammary Gland						
Fibrosarcoma, Metastatic, Skin						
Sarcoma, Metastatic, Uncertain Primary Site						

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Squamous Cell Carcinoma, Metastatic, Thymus						
Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site			1 (3%)			
C-cell, Carcinoma, Metastatic, Thyroid Gland		1 (3%)				
Nose	(34)	(29)	(32)	(36)	(38)	(38)
Osteosarcoma					1 (3%)	
Trachea	(32)	(29)	(32)	(34)	(37)	(38)
SPECIAL SENSES SYSTEM						
Ear	(0)	(0)	(0)	(1)	(0)	(0)
Neural Crest Tumor, Benign				1 (100%)		
Eye	(1)	(0)	(1)	(0)	(2)	(0)
Zymbal's Gland	(0)	(1)	(0)	(0)	(2)	(2)
Adenoma					1 (50%)	
Carcinoma		1 (100%)			1 (50%)	2 (100%)
URINARY SYSTEM						
Kidney	(50)	(48)	(46)	(49)	(50)	(46)
Adenocarcinoma, Metastatic, Uterus						1 (2%)
Fibrosarcoma, Metastatic, Skin						
Lipoma	1 (2%)					
Sarcoma, Metastatic, Uncertain Primary Site						
Urinary Bladder	(0)	(1)	(0)	(2)	(0)	(1)

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 04

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 Veh. Ctrl F

F1 2.5 BPA F

F1 25.0 BPA F

F1 250.0BPA F

F1 2500.BPA F

F1 25000BPA F

SYSTEMIC LESIONS

Multiple Organ	*(50)	*(48)	*(46)	*(49)	*(50)	*(46)
Histiocytic Sarcoma						1 (2%)
Leukemia Granulocytic	1 (2%)					
Leukemia Mononuclear						
Lymphoma Malignant	2 (4%)	1 (2%)	1 (2%)		2 (4%)	1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 0.05 EE2 F

F1 0.50 EE2 F

F1 Veh. StDose F

F1 2.5 StDose F

F1 25.0 StDose F

F1 250.0StDose F

Disposition Summary

	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Animals Initially In Study	26	26	50	50	48	50
Early Deaths						
Moribund Sacrifice	17	16	29	29	27	26
Natural Death	1	4	3	4	3	2
Survivors						
Moribund Sacrifice	1	2	7	3	5	9
Natural Death				2		
Terminal Sacrifice	7	4	11	12	13	13
Animals Examined Microscopically	26	26	50	50	48	50

ALIMENTARY SYSTEM

Esophagus	(19)	(22)	(38)	(38)	(35)	(37)
Intestine Large, Cecum	(0)	(0)	(0)	(0)	(0)	(0)
Intestine Large, Colon	(19)	(21)	(38)	(34)	(33)	(35)
Adenocarcinoma						
Adenocarcinoma, Metastatic, Uterus						
Intestine Small, Duodenum	(0)	(1)	(0)	(0)	(0)	(0)
Intestine Small, Ileum	(19)	(18)	(36)	(34)	(31)	(35)
Adenocarcinoma, Metastatic, Uterus						
Intestine Small, Jejunum	(0)	(2)	(1)	(2)	(0)	(0)
Adenocarcinoma		1 (50%)	1 (100%)	1 (50%)		
Leiomyoma						
Leiomyosarcoma						
Liver	(26)	(26)	(49)	(50)	(48)	(50)
Adenocarcinoma, Metastatic, Uterus						
Fibrosarcoma, Metastatic, Skin						
Hepatocellular Adenoma		1 (4%)				
Sarcoma, Metastatic, Spleen						
Sarcoma, Metastatic, Uncertain Primary Site	1 (4%)					
Yolk Sac Carcinoma, Metastatic, Ovary						
Mesentery	(2)	(1)	(2)	(3)	(1)	(2)
Adenocarcinoma, Metastatic, Uterus						
Hemangiosarcoma					1 (100%)	

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Sarcoma, Metastatic, Uncertain Primary Site	1 (50%)					
Yolk Sac Carcinoma, Metastatic, Ovary						
Oral Mucosa	(0)	(0)	(1)	(0)	(1)	(0)
Squamous Cell Papilloma			1 (100%)		1 (100%)	
Pancreas	(26)	(26)	(49)	(49)	(47)	(49)
Adenocarcinoma, Metastatic, Uterus						
Yolk Sac Carcinoma, Metastatic, Ovary						
Acinar Cell, Adenoma						
Stomach, Forestomach	(19)	(22)	(38)	(38)	(35)	(37)
Adenocarcinoma, Metastatic, Uterus						
Squamous Cell Carcinoma						
Squamous Cell Papilloma						
Stomach, Glandular	(19)	(21)	(38)	(36)	(33)	(37)
Adenocarcinoma, Metastatic, Uterus						
Tongue	(0)	(1)	(0)	(0)	(0)	(0)
CARDIOVASCULAR SYSTEM						
Blood Vessel	(26)	(26)	(50)	(50)	(48)	(50)
Heart	(26)	(26)	(50)	(50)	(48)	(50)
Fibrosarcoma, Metastatic, Skin						
Schwannoma Benign			2 (4%)			
Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site						
ENDOCRINE SYSTEM						
Adrenal Cortex	(26)	(26)	(49)	(49)	(48)	(50)
Adenoma		1 (4%)				1 (2%)
Fibrosarcoma, Metastatic, Skin						
Bilateral, Adenoma						1 (2%)
Adrenal Medulla	(26)	(26)	(49)	(50)	(48)	(48)
Pheochromocytoma Benign	1 (4%)	2 (8%)	2 (4%)		1 (2%)	1 (2%)
Pheochromocytoma Malignant						
Islets, Pancreatic	(26)	(26)	(49)	(50)	(48)	(49)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Adenoma	1 (4%)			1 (2%)	1 (2%)	1 (2%)
Carcinoma						
Parathyroid Gland	(26)	(26)	(45)	(49)	(47)	(47)
Adenoma						
Carcinoma, Deep Invasion						1 (2%)
Pituitary Gland	(26)	(26)	(49)	(50)	(48)	(50)
Pars Distalis, Adenoma	10 (38%)	17 (65%)	23 (47%)	16 (32%)	14 (29%)	20 (40%)
Pars Distalis, Carcinoma		3 (12%)				1 (2%)
Pars Intermedia, Adenoma						
Thyroid Gland	(26)	(25)	(48)	(49)	(45)	(48)
C-cell, Adenoma		2 (8%)		1 (2%)		
C-cell, Carcinoma						2 (4%)
Follicular Cell, Carcinoma						

GENERAL BODY SYSTEM

Tissue NOS	(2)	(0)	(1)	(0)	(0)	(0)
Fibrosarcoma, Metastatic, Clitoral Gland						
Fibrosarcoma, Metastatic, Skin	1 (50%)					
Leiomyosarcoma						
Lipoma			1 (100%)			
Sarcoma	1 (50%)					

GENITAL SYSTEM

Clitoral Gland	(2)	(6)	(6)	(6)	(6)	(8)
Adenoma		2 (33%)	1 (17%)			1 (13%)
Carcinoma			1 (17%)			1 (13%)
Fibrosarcoma						
Squamous Cell Papilloma						1 (13%)
Fat Pad, Ovarian/parametrial	(0)	(0)	(0)	(0)	(0)	(0)
Adenocarcinoma, Metastatic, Uterus						
Ovary	(26)	(26)	(49)	(49)	(47)	(50)
Adenocarcinoma, Metastatic, Uterus						
Fibrosarcoma, Metastatic, Skin						

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Granulosa Cell Tumor Benign			1 (2%)	1 (2%)		
Granulosa Cell Tumor Malignant						
Sarcoma, Metastatic, Uncertain Primary Site	1 (4%)					
Sex Cord Stromal Tumor, Benign					1 (2%)	
Thecoma Benign						
Thecoma Malignant						
Tubulostromal Adenoma	1 (4%)					
Yolk Sac Carcinoma						
Oviduct	(26)	(26)	(49)	(49)	(45)	(48)
Uterus	(26)	(26)	(49)	(49)	(48)	(49)
Polyp Stromal	3 (12%)	1 (4%)	7 (14%)	4 (8%)	5 (10%)	5 (10%)
Polyp Stromal, Multiple						1 (2%)
Sarcoma					1 (2%)	
Schwannoma Malignant					1 (2%)	
Yolk Sac Carcinoma, Metastatic, Ovary						
Cervix, Polyp Stromal						1 (2%)
Cervix, Squamous Cell Carcinoma		1 (4%)				
Endometrium, Adenocarcinoma			1 (2%)	1 (2%)		
Endometrium, Adenoma						
Endothelium, Adenoma				1 (2%)		
Vagina	(26)	(26)	(49)	(50)	(47)	(49)
Sarcoma Stromal						
Epithelium, Squamous Cell Carcinoma						
HEMATOPOIETIC SYSTEM						
Bone Marrow	(26)	(26)	(49)	(49)	(47)	(49)
Lymph Node	(4)	(3)	(9)	(6)	(3)	(10)
Mediastinal, Adenocarcinoma, Metastatic, Uterus						
Mediastinal, Fibrosarcoma, Metastatic, Skin						
Lymph Node, Mandibular	(0)	(1)	(4)	(5)	(3)	(8)
Lymph Node, Mesenteric	(1)	(0)	(0)	(1)	(0)	(1)
Spleen	(26)	(26)	(49)	(50)	(47)	(49)
Adenocarcinoma, Metastatic, Uterus						

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Fibrosarcoma, Metastatic, Skin Sarcoma						1 (2%)
Thymoma Malignant, Metastatic, Thymus		1 (4%)				
Yolk Sac Carcinoma, Metastatic, Ovary						
Thymus	(26)	(26)	(49)	(50)	(48)	(50)
Squamous Cell Carcinoma				1 (2%)		
Thymoma Benign			1 (2%)			
Epithelial Cell, Thymoma Malignant		1 (4%)				
INTEGUMENTARY SYSTEM						
Mammary Gland	(26)	(26)	(50)	(50)	(48)	(49)
Adenocarcinoma	2 (8%)	6 (23%)	2 (4%)	10 (20%)	4 (8%)	5 (10%)
Adenocarcinoma, Multiple		4 (15%)	1 (2%)	1 (2%)	1 (2%)	2 (4%)
Adenoma			1 (2%)	1 (2%)		3 (6%)
Adenoma, Multiple						
Adenosquamous Carcinoma					2 (4%)	
Carcinosarcoma						
Fibroadenoma	7 (27%)	10 (38%)	14 (28%)	13 (26%)	9 (19%)	11 (22%)
Fibroadenoma, Multiple	11 (42%)	4 (15%)	29 (58%)	32 (64%)	28 (58%)	31 (63%)
Fibroma			1 (2%)			
Fibrosarcoma, Metastatic, Skin						
Hemangiosarcoma						
Mixed Tumor Benign						
Sarcoma	1 (4%)					
Skin	(9)	(9)	(16)	(8)	(8)	(19)
Basal Cell Adenoma			2 (13%)		1 (13%)	1 (5%)
Basal Cell Carcinoma						
Squamous Cell Papilloma			1 (6%)			2 (11%)
Subcutaneous Tissue, Fibroma						1 (5%)
Subcutaneous Tissue, Fibrosarcoma	1 (11%)			1 (13%)	2 (25%)	
Subcutaneous Tissue, Lipoma			1 (6%)			1 (5%)
MUSCULOSKELETAL SYSTEM						

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Bone	(0)	(0)	(2)	(0)	(0)	(0)
Vertebra, Adenocarcinoma, Metastatic, Uterus			1 (50%)			
Bone, Femur	(26)	(26)	(50)	(50)	(48)	(50)
Skeletal Muscle	(0)	(3)	(0)	(0)	(0)	(1)
Adenocarcinoma, Metastatic, Uterus						
Rhabdomyosarcoma		1 (33%)				
NERVOUS SYSTEM						
Brain, Brain Stem	(26)	(26)	(49)	(50)	(48)	(50)
Carcinoma, Deep Invasion		3 (12%)				
Glioma Malignant						
Oligodendroglioma Malignant						
Brain, Cerebellum	(26)	(26)	(49)	(50)	(48)	(50)
Glioma Malignant						
Brain, Cerebrum	(26)	(26)	(49)	(50)	(48)	(50)
Glioma Malignant						
Granular Cell Tumor Benign		1 (4%)				
Oligodendroglioma Malignant						
Nerve Trigeminal	(5)	(4)	(1)	(3)	(0)	(3)
Peripheral Nerve, Sciatic	(5)	(4)	(1)	(3)	(0)	(3)
Peripheral Nerve, Tibial	(5)	(4)	(1)	(3)	(0)	(3)
Spinal Cord, Cervical	(5)	(4)	(1)	(3)	(0)	(3)
Spinal Cord, Lumbar	(5)	(4)	(1)	(3)	(0)	(3)
Spinal Cord, Thoracic	(5)	(4)	(1)	(3)	(0)	(3)
RESPIRATORY SYSTEM						
Lung	(21)	(22)	(40)	(40)	(39)	(40)
Adenocarcinoma, Metastatic, Uterus			1 (3%)			
Alveolar/Bronchiolar Adenoma						
Carcinosarcoma, Metastatic, Mammary Gland					1 (3%)	
Fibrosarcoma, Metastatic, Skin						
Sarcoma, Metastatic, Uncertain Primary Site	1 (5%)					

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Squamous Cell Carcinoma, Metastatic, Thymus				1 (3%)		
Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site						
C-cell, Carcinoma, Metastatic, Thyroid Gland						
Nose	(19)	(22)	(38)	(36)	(35)	(37)
Osteosarcoma						
Trachea	(19)	(20)	(38)	(36)	(33)	(35)
SPECIAL SENSES SYSTEM						
Ear	(0)	(0)	(0)	(0)	(0)	(0)
Neural Crest Tumor, Benign						
Eye	(0)	(0)	(0)	(0)	(0)	(0)
Zymbal's Gland	(1)	(0)	(0)	(1)	(0)	(0)
Adenoma				1 (100%)		
Carcinoma						
URINARY SYSTEM						
Kidney	(26)	(26)	(49)	(50)	(47)	(49)
Adenocarcinoma, Metastatic, Uterus						
Fibrosarcoma, Metastatic, Skin						
Lipoma						
Sarcoma, Metastatic, Uncertain Primary Site	1 (4%)					
Urinary Bladder	(1)	(0)	(0)	(1)	(0)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 04

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
SYSTEMIC LESIONS						
Multiple Organ	*(26)	*(26)	*(50)	*(50)	*(48)	*(50)
Histiocytic Sarcoma				2 (4%)		
Leukemia Granulocytic						
Leukemia Mononuclear						2 (4%)
Lymphoma Malignant				1 (2%)		1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 2500.StDose F

F1 2500StDose F

Disposition Summary

Animals Initially In Study	50	46
Early Deaths		
Moribund Sacrifice	26	25
Natural Death	3	2
Survivors		
Moribund Sacrifice	4	6
Natural Death		
Terminal Sacrifice	17	13
Animals Examined Microscopically	50	46

ALIMENTARY SYSTEM

Esophagus	(33)	(33)
Intestine Large, Cecum	(0)	(0)
Intestine Large, Colon	(32)	(33)
Adenocarcinoma		1 (3%)
Adenocarcinoma, Metastatic, Uterus		
Intestine Small, Duodenum	(0)	(0)
Intestine Small, Ileum	(30)	(33)
Adenocarcinoma, Metastatic, Uterus		
Intestine Small, Jejunum	(0)	(0)
Adenocarcinoma		
Leiomyoma		
Leiomyosarcoma		
Liver	(50)	(46)
Adenocarcinoma, Metastatic, Uterus		
Fibrosarcoma, Metastatic, Skin	1 (2%)	
Hepatocellular Adenoma		1 (2%)
Sarcoma, Metastatic, Spleen		
Sarcoma, Metastatic, Uncertain Primary Site		
Yolk Sac Carcinoma, Metastatic, Ovary		
Mesentery	(1)	(3)
Adenocarcinoma, Metastatic, Uterus		
Hemangiosarcoma		

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Sarcoma, Metastatic, Uncertain Primary Site		
Yolk Sac Carcinoma, Metastatic, Ovary		
Oral Mucosa	(0)	(1)
Squamous Cell Papilloma		1 (100%)
Pancreas	(49)	(46)
Adenocarcinoma, Metastatic, Uterus		
Yolk Sac Carcinoma, Metastatic, Ovary		
Acinar Cell, Adenoma	1 (2%)	
Stomach, Forestomach	(34)	(34)
Adenocarcinoma, Metastatic, Uterus		
Squamous Cell Carcinoma	1 (3%)	
Squamous Cell Papilloma		1 (3%)
Stomach, Glandular	(32)	(32)
Adenocarcinoma, Metastatic, Uterus		
Tongue	(0)	(0)

CARDIOVASCULAR SYSTEM

Blood Vessel	(50)	(46)
Heart	(50)	(46)
Fibrosarcoma, Metastatic, Skin	1 (2%)	
Schwannoma Benign		
Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site		

ENDOCRINE SYSTEM

Adrenal Cortex	(50)	(46)
Adenoma		1 (2%)
Fibrosarcoma, Metastatic, Skin	1 (2%)	
Bilateral, Adenoma		
Adrenal Medulla	(50)	(45)
Pheochromocytoma Benign		1 (2%)
Pheochromocytoma Malignant		
Islets, Pancreatic	(49)	(46)

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Adenoma	1 (2%)	1 (2%)
Carcinoma	1 (2%)	
Parathyroid Gland	(47)	(46)
Adenoma	1 (2%)	
Carcinoma, Deep Invasion		
Pituitary Gland	(50)	(46)
Pars Distalis, Adenoma	20 (40%)	20 (43%)
Pars Distalis, Carcinoma		1 (2%)
Pars Intermedia, Adenoma		
Thyroid Gland	(50)	(46)
C-cell, Adenoma		
C-cell, Carcinoma		
Follicular Cell, Carcinoma		

GENERAL BODY SYSTEM

Tissue NOS	(0)	(1)
Fibrosarcoma, Metastatic, Clitoral Gland		
Fibrosarcoma, Metastatic, Skin		
Leiomyosarcoma		
Lipoma		1 (100%)
Sarcoma		

GENITAL SYSTEM

Clitoral Gland	(6)	(7)
Adenoma		1 (14%)
Carcinoma	2 (33%)	1 (14%)
Fibrosarcoma		
Squamous Cell Papilloma		
Fat Pad, Ovarian/parametrial	(1)	(0)
Adenocarcinoma, Metastatic, Uterus		
Ovary	(50)	(46)
Adenocarcinoma, Metastatic, Uterus		
Fibrosarcoma, Metastatic, Skin	1 (2%)	

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Granulosa Cell Tumor Benign		
Granulosa Cell Tumor Malignant		
Sarcoma, Metastatic, Uncertain Primary Site		
Sex Cord Stromal Tumor, Benign		
Thecoma Benign		
Thecoma Malignant	1 (2%)	
Tubulostromal Adenoma		
Yolk Sac Carcinoma		
Oviduct	(49)	(46)
Uterus	(49)	(46)
Polyp Stromal	4 (8%)	1 (2%)
Polyp Stromal, Multiple		
Sarcoma		
Schwannoma Malignant		
Yolk Sac Carcinoma, Metastatic, Ovary		
Cervix, Polyp Stromal		
Cervix, Squamous Cell Carcinoma		
Endometrium, Adenocarcinoma		
Endometrium, Adenoma		1 (2%)
Endothelium, Adenoma		
Vagina	(49)	(46)
Sarcoma Stromal	1 (2%)	
Epithelium, Squamous Cell Carcinoma		

HEMATOPOIETIC SYSTEM

Bone Marrow	(49)	(45)
Lymph Node	(4)	(11)
Mediastinal, Adenocarcinoma, Metastatic, Uterus		
Mediastinal, Fibrosarcoma, Metastatic, Skin	1 (25%)	
Lymph Node, Mandibular	(6)	(5)
Lymph Node, Mesenteric	(0)	(2)
Spleen	(49)	(46)
Adenocarcinoma, Metastatic, Uterus		

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Fibrosarcoma, Metastatic, Skin Sarcoma	1 (2%)	
Thymoma Malignant, Metastatic, Thymus Yolk Sac Carcinoma, Metastatic, Ovary		
Thymus	(49)	(46)
Squamous Cell Carcinoma		
Thymoma Benign		1 (2%)
Epithelial Cell, Thymoma Malignant		

INTEGUMENTARY SYSTEM

Mammary Gland	(50)	(46)
Adenocarcinoma	8 (16%)	3 (7%)
Adenocarcinoma, Multiple	1 (2%)	2 (4%)
Adenoma		1 (2%)
Adenoma, Multiple		
Adenosquamous Carcinoma	1 (2%)	
Carcinosarcoma		
Fibroadenoma	7 (14%)	6 (13%)
Fibroadenoma, Multiple	29 (58%)	28 (61%)
Fibroma		
Fibrosarcoma, Metastatic, Skin	1 (2%)	
Hemangiosarcoma		
Mixed Tumor Benign		
Sarcoma		
Skin	(16)	(12)
Basal Cell Adenoma	1 (6%)	
Basal Cell Carcinoma		1 (8%)
Squamous Cell Papilloma		
Subcutaneous Tissue, Fibroma	1 (6%)	
Subcutaneous Tissue, Fibrosarcoma	2 (13%)	
Subcutaneous Tissue, Lipoma	1 (6%)	1 (8%)

MUSCULOSKELETAL SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
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Bone	(0)	(0)
Vertebra, Adenocarcinoma, Metastatic, Uterus		
Bone, Femur	(50)	(46)
Skeletal Muscle	(0)	(2)
Adenocarcinoma, Metastatic, Uterus		
Rhabdomyosarcoma		

NERVOUS SYSTEM

Brain, Brain Stem	(50)	(46)
Carcinoma, Deep Invasion		1 (2%)
Glioma Malignant		
Oligodendroglioma Malignant		
Brain, Cerebellum	(50)	(46)
Glioma Malignant		
Brain, Cerebrum	(50)	(46)
Glioma Malignant	1 (2%)	1 (2%)
Granular Cell Tumor Benign		1 (2%)
Oligodendroglioma Malignant		
Nerve Trigeminal	(3)	(4)
Peripheral Nerve, Sciatic	(3)	(4)
Peripheral Nerve, Tibial	(3)	(4)
Spinal Cord, Cervical	(3)	(4)
Spinal Cord, Lumbar	(3)	(4)
Spinal Cord, Thoracic	(3)	(4)

RESPIRATORY SYSTEM

Lung	(39)	(37)
Adenocarcinoma, Metastatic, Uterus		
Alveolar/Bronchiolar Adenoma		
Carcinosarcoma, Metastatic, Mammary Gland		
Fibrosarcoma, Metastatic, Skin	1 (3%)	
Sarcoma, Metastatic, Uncertain Primary Site		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

**Sprague Dawley (NCTR)
RATS FEMALE**

F1 2500.StDose F

F1 25000StDose F

Squamous Cell Carcinoma, Metastatic, Thymus		
Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site		
C-cell, Carcinoma, Metastatic, Thyroid Gland		
Nose	(32)	(33)
Osteosarcoma		
Trachea	(32)	(33)

SPECIAL SENSES SYSTEM

Ear	(0)	(1)
Neural Crest Tumor, Benign		1 (100%)
Eye	(1)	(0)
Zymbal's Gland	(0)	(0)
Adenoma		
Carcinoma		

URINARY SYSTEM

Kidney	(50)	(46)
Adenocarcinoma, Metastatic, Uterus		
Fibrosarcoma, Metastatic, Skin	1 (2%)	
Lipoma	2 (4%)	
Sarcoma, Metastatic, Uncertain Primary Site		
Urinary Bladder	(1)	(1)

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 04

**P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS
ABRIDGED) (a)**

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 2500.StDose F

F1 25000StDose F

SYSTEMIC LESIONS

Multiple Organ	*(50)	*(46)
Histiocytic Sarcoma	1 (2%)	
Leukemia Granulocytic		
Leukemia Mononuclear	1 (2%)	
Lymphoma Malignant	1 (2%)	2 (4%)

a - Number of animals examined microscopically at site and number of animals with lesion

* Number of animals with any tissue examined microscopically

Experiment Number: 10034 - 04

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 Veh. Ctrl F

F1 2.5 BPA F

F1 25.0 BPA F

F1 250.0BPA F

F1 2500.BPA F

F1 25000BPA F

Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	47	44	38	47	45	43
Total Primary Neoplasms	97	91	73	83	86	83
Total Animals with Benign Neoplasms	44	43	37	44	40	41
Total Benign Neoplasms	82	72	60	71	64	72
Total Animals with Malignant Neoplasms	13	17	11	12	19	11
Total Malignant Neoplasms	15	19	13	12	22	11
Total Animals with Metastatic Neoplasms		2	1	2		1
Total Metastatic Neoplasms		2	2	6		14
Total Animals with Malignant Neoplasms Uncertain Primary Site			1			
Total Animals with Neoplasms Uncertain- Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 04

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 0.05 EE2 F

F1 0.50 EE2 F

F1 Veh. StDose F

F1 2.5 StDose F

F1 25.0 StDose F

F1 250.0StDose F

Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	22	25	49	49	46	48
Total Primary Neoplasms	39	61	94	89	73	99
Total Animals with Benign Neoplasms	21	24	48	47	44	46
Total Benign Neoplasms	34	41	88	71	61	83
Total Animals with Malignant Neoplasms	4	12	6	16	12	15
Total Malignant Neoplasms	5	20	6	18	12	16
Total Animals with Metastatic Neoplasms	2	1	1	3	1	
Total Metastatic Neoplasms	6	1	2	5	1	
Total Animals with Malignant Neoplasms Uncertain Primary Site	1					
Total Animals with Neoplasms Uncertain- Benign or Malignant						
Total Uncertain Neoplasms						

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Experiment Number: 10034 - 04

P05: INCIDENCE RATES OF NEOPLASMS BY ANATOMIC SITE (SYSTEMIC LESIONS ABRIDGED) (a)

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 2500.StDose F

F1 25000StDose F

Tumor Summary for Females

Total Animals with Primary Neoplasms (b)	46	46
Total Primary Neoplasms	90	82
Total Animals with Benign Neoplasms	45	43
Total Benign Neoplasms	68	68
Total Animals with Malignant Neoplasms	15	13
Total Malignant Neoplasms	22	14
Total Animals with Metastatic Neoplasms	1	
Total Metastatic Neoplasms	9	
Total Animals with Malignant Neoplasms Uncertain Primary Site		
Total Animals with Neoplasms Uncertain- Benign or Malignant		
Total Uncertain Neoplasms		

*** END OF REPORT ***

a - Number of animals examined microscopically at site and number of animals with lesion

b - Primary tumors: all tumors except metastatic tumors

Appendix III Incidence Rates of Non-neoplastic Lesions by Anatomic Site
(Pathology Report 3)

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

NTP Study Number: C10034
Lock Date: 08/16/2017
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: 09/29/2017

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 Veh. Ctrl M

F1 2.5 BPA M

F1 25.0 BPA M

F1 250.0 BPA M

F1 2500.BPA M

F1 25000 BPA M

Disposition Summary

	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
Animals Initially In Study	22	22	20	24	20	22
Early Deaths						
Interval Sacrifice	18	22	18	24	18	21
Moribund Sacrifice	4		1			
Natural Death			1		2	1
Survivors						
Animals Examined Microscopically	22	22	20	24	20	22

ALIMENTARY SYSTEM

Esophagus	(4)	(1)	(2)	(0)	(2)	(1)
Foreign Body		1 (100%)	1 (50%)			
Perforation		1 (100%)	1 (50%)			
Periesophageal Tissue, Inflammation, Suppurative			1 (50%)			
Periesophageal Tissue, Inflammation, Granulomatous		1 (100%)				
Periesophageal Tissue, Necrosis			1 (50%)			
Intestine Large, Colon	(4)	(0)	(2)	(0)	(0)	(0)
Intestine Small, Ileum	(4)	(0)	(2)	(0)	(0)	(0)
Intestine Small, Jejunum	(0)	(0)	(0)	(0)	(0)	(1)
Diverticulum						
Liver	(22)	(22)	(20)	(24)	(19)	(22)
Angiectasis				1 (4%)		
Basophilic Focus	1 (5%)		3 (15%)			
Cholangiofibrosis						
Clear Cell Focus	3 (14%)	1 (5%)		1 (4%)		1 (5%)
Cyst		1 (5%)				
Deformity						
Degeneration, Cystic	2 (9%)		1 (5%)		1 (5%)	
Eosinophilic Focus	1 (5%)		1 (5%)	1 (4%)	2 (11%)	1 (5%)
Fatty Change			2 (10%)			
Hematopoietic Cell Proliferation						
Hepatodiaphragmatic Nodule		2 (9%)	2 (10%)	3 (13%)	4 (21%)	1 (5%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
Infiltration Cellular, Mononuclear Cell	5 (23%)	11 (50%)	9 (45%)	13 (54%)	11 (58%)	8 (36%)
Inflammation, Granulomatous						
Inflammation, Chronic Active	1 (5%)	1 (5%)				
Mixed Cell Focus						
Pigmentation						
Polyarteritis						
Tension Lipidosis	1 (5%)		3 (15%)	3 (13%)	2 (11%)	1 (5%)
Vacuolization Cytoplasmic	8 (36%)	1 (5%)	6 (30%)	11 (46%)	8 (42%)	8 (36%)
Bile Duct, Cyst						
Bile Duct, Hyperplasia	3 (14%)	6 (27%)	2 (10%)	6 (25%)	5 (26%)	1 (5%)
Biliary Tract, Fibrosis						
Capsule, Fibrosis				1 (4%)		
Hepatocyte, Necrosis		1 (5%)		1 (4%)		
Oval Cell, Hyperplasia						
Mesentery	(1)	(0)	(1)	(1)	(0)	(0)
Fat, Fibrosis			1 (100%)			
Fat, Hemorrhage						
Fat, Inflammation, Chronic Active			1 (100%)			
Fat, Necrosis	1 (100%)		1 (100%)	1 (100%)		
Pancreas	(22)	(22)	(20)	(24)	(19)	(22)
Basophilic Focus				2 (8%)		
Cyst Multilocular						
Degeneration, Cystic				1 (4%)		
Edema						
Granuloma						1 (5%)
Infiltration Cellular, Lymphocyte				1 (4%)	1 (5%)	
Inflammation, Chronic Active	1 (5%)					
Pigmentation	8 (36%)	7 (32%)	10 (50%)	13 (54%)	7 (37%)	11 (50%)
Polyarteritis						
Acinus, Degeneration	19 (86%)	21 (95%)	17 (85%)	23 (96%)	16 (84%)	19 (86%)
Stomach, Forestomach	(5)	(0)	(3)	(0)	(1)	(1)
Cyst, Squamous	1 (20%)		1 (33%)			
Inflammation, Suppurative	1 (20%)					
Inflammation, Chronic Active	1 (20%)					
Epithelium, Hyperplasia	1 (20%)					
Stomach, Glandular	(4)	(0)	(2)	(0)	(0)	(1)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
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CARDIOVASCULAR SYSTEM

Blood Vessel	(22)	(22)	(20)	(24)	(20)	(22)
Heart	(22)	(22)	(20)	(24)	(20)	(22)
Cardiomyopathy	16 (73%)	16 (73%)	16 (80%)	18 (75%)	15 (75%)	20 (91%)
Mineralization						
Pigmentation						1 (5%)
Polyarteritis						
Ventricle, Dilatation						

ENDOCRINE SYSTEM

Adrenal Cortex	(22)	(22)	(20)	(24)	(20)	(22)
Accessory Adrenal Cortical Nodule						
Degeneration, Cystic						
Hyperplasia					1 (5%)	1 (5%)
Hypertrophy				1 (4%)		1 (5%)
Metaplasia, Osseous						
Vacuolization Cytoplasmic		3 (14%)	1 (5%)	2 (8%)		2 (9%)
Adrenal Medulla	(22)	(22)	(20)	(24)	(20)	(22)
Hyperplasia						
Islets, Pancreatic	(22)	(22)	(20)	(24)	(19)	(22)
Fibrosis						1 (5%)
Parathyroid Gland	(22)	(21)	(19)	(24)	(19)	(21)
Hyperplasia	7 (32%)	5 (24%)	7 (37%)	5 (21%)	2 (11%)	2 (10%)
Pituitary Gland	(22)	(22)	(20)	(24)	(20)	(22)
Angiectasis						
Mineralization			1 (5%)			
Vacuolization Cytoplasmic						
Pars Distalis, Cyst	1 (5%)			3 (13%)	1 (5%)	2 (9%)
Pars Distalis, Cyst Multilocular			1 (5%)			1 (5%)
Pars Distalis, Hyperplasia	4 (18%)	6 (27%)	2 (10%)	4 (17%)	2 (10%)	4 (18%)
Pars Intermedia, Cyst						1 (5%)
Rathke's Cleft, Cyst			1 (5%)			

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
Thyroid Gland	(22)	(22)	(20)	(24)	(18)	(21)
Infiltration Cellular, Lymphocyte		1 (5%)				
Ultimobranchial Cyst	5 (23%)	4 (18%)	6 (30%)	5 (21%)	5 (28%)	7 (33%)
C-cell, Hyperplasia	10 (45%)	13 (59%)	9 (45%)	12 (50%)	7 (39%)	10 (48%)
Follicular Cell, Hyperplasia	1 (5%)	1 (5%)	2 (10%)	2 (8%)	2 (11%)	1 (5%)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Coagulating Gland	(22)	(22)	(20)	(24)	(18)	(21)
Polyarteritis						
Ductus Deferens	(0)	(0)	(0)	(0)	(0)	(0)
Lumen, Dilatation						
Epididymis	(22)	(22)	(20)	(24)	(20)	(22)
Exfoliated Germ Cell	1 (5%)	1 (5%)	1 (5%)	1 (4%)		6 (27%)
Granuloma Sperm						
Hypospermia	2 (9%)	4 (18%)	1 (5%)	2 (8%)		2 (9%)
Infiltration Cellular, Lymphocyte		1 (5%)	3 (15%)	2 (8%)		5 (23%)
Polyarteritis						
Fat Pad, Epididymal	(0)	(1)	(0)	(1)	(1)	(0)
Necrosis		1 (100%)		1 (100%)	1 (100%)	
Preputial Gland	(2)	(3)	(3)	(1)	(1)	(1)
Hyperkeratosis			1 (33%)			
Infiltration Cellular, Lymphocyte			1 (33%)			
Inflammation, Suppurative	1 (50%)	3 (100%)	2 (67%)	1 (100%)	1 (100%)	
Duct, Dilatation	2 (100%)	3 (100%)	3 (100%)	1 (100%)	1 (100%)	
Prostate, Dorsal/lateral Lobe	(22)	(22)	(20)	(24)	(20)	(22)
Corpora Amylacea						
Degeneration, Cystic						
Fibrosis						
Infiltration Cellular, Lymphocyte	4 (18%)	10 (45%)	5 (25%)	6 (25%)	5 (25%)	7 (32%)
Inflammation, Suppurative	18 (82%)	20 (91%)	18 (90%)	22 (92%)	18 (90%)	19 (86%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
Prostate, Ventral Lobe	(22)	(22)	(20)	(24)	(20)	(22)
Atrophy	1 (5%)					
Fibrosis						
Infiltration Cellular, Lymphocyte	8 (36%)	10 (45%)	10 (50%)	8 (33%)	9 (45%)	8 (36%)
Inflammation, Suppurative	10 (45%)	3 (14%)	4 (20%)	5 (21%)	3 (15%)	1 (5%)
Polyarteritis						
Epithelium, Hyperplasia				1 (4%)		
Seminal Vesicle	(22)	(22)	(20)	(24)	(18)	(21)
Atrophy	1 (5%)					
Polyarteritis						
Lumen, Dilatation						
Testes	(22)	(22)	(20)	(24)	(20)	(22)
Polyarteritis						
Seminiferous Tubule, Degeneration	6 (27%)	7 (32%)	9 (45%)	10 (42%)	5 (25%)	9 (41%)

HEMATOPOIETIC SYSTEM

Bone Marrow	(22)	(22)	(20)	(24)	(18)	(22)
Myeloid Cell, Hyperplasia			1 (5%)		1 (6%)	
Lymph Node	(2)	(1)	(0)	(0)	(1)	(0)
Degeneration, Cystic					1 (100%)	
Mediastinal, Hyperplasia, Lymphoid						
Renal, Degeneration, Cystic		1 (100%)				
Lymph Node, Mandibular	(2)	(1)	(0)	(0)	(2)	(0)
Congestion					1 (50%)	
Degeneration, Cystic						
Hemorrhage					1 (50%)	
Hyperplasia, Lymphoid		1 (100%)			1 (50%)	
Infiltration Cellular, Plasma Cell		1 (100%)			1 (50%)	
Lymph Node, Mesenteric	(2)	(0)	(0)	(0)	(0)	(0)
Degeneration, Cystic						
Hyperplasia, Lymphoid						
Pigmentation						
Spleen	(22)	(22)	(20)	(24)	(18)	(22)
Hematopoietic Cell Proliferation						2 (9%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
Hyperplasia, Lymphoid Pigmentation	15 (68%)	16 (73%)	15 (75%)	16 (67%)	15 (83%)	13 (59%)
Polyarteritis Capsule, Fibrosis Capsule, Inflammation, Chronic						
Thymus	(22)	(22)	(20)	(24)	(19)	(21)
Atrophy	18 (82%)	21 (95%)	17 (85%)	22 (92%)	17 (89%)	20 (95%)
Hemorrhage					1 (5%)	
Hyperplasia, Lymphoid						
INTEGUMENTARY SYSTEM						
Mammary Gland	(22)	(21)	(20)	(24)	(19)	(22)
Fibrosis						1 (5%)
Hyperplasia, Lobular	2 (9%)	1 (5%)		3 (13%)	1 (5%)	
Skin	(1)	(2)	(0)	(1)	(1)	(0)
Abscess						
Cyst Epithelial Inclusion		1 (50%)			1 (100%)	
Foreign Body						
Subcutaneous Tissue, Cyst				1 (100%)		
Subcutaneous Tissue, Metaplasia, Osseous		1 (50%)				
MUSCULOSKELETAL SYSTEM						
Bone	(0)	(0)	(0)	(1)	(0)	(0)
Bone, Femur	(22)	(22)	(20)	(24)	(20)	(22)
Skeletal Muscle	(1)	(0)	(1)	(0)	(0)	(0)
Foreign Body			1 (100%)			
Inflammation, Suppurative			1 (100%)			
Necrosis			1 (100%)			
NERVOUS SYSTEM						
Brain, Brain Stem	(22)	(22)	(20)	(24)	(20)	(22)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
Hemorrhage	1 (5%)					
Necrosis	1 (5%)					
Brain, Cerebellum	(22)	(22)	(20)	(24)	(20)	(22)
Brain, Cerebrum	(22)	(22)	(20)	(24)	(20)	(22)
Cyst						
Hemorrhage	1 (5%)					
Necrosis	1 (5%)					
Neuron, Degeneration						
Ventricle, Dilatation						
Nerve Trigeminal	(2)	(2)	(0)	(1)	(1)	(1)
Peripheral Nerve, Sciatic	(2)	(2)	(0)	(1)	(1)	(1)
Peripheral Nerve, Tibial	(2)	(2)	(0)	(1)	(1)	(1)
Spinal Cord, Cervical	(2)	(2)	(0)	(1)	(1)	(1)
Spinal Cord, Lumbar	(2)	(2)	(0)	(1)	(1)	(1)
Axon, Degeneration		1 (50%)		1 (100%)	1 (100%)	
Spinal Cord, Thoracic	(2)	(2)	(0)	(1)	(1)	(1)
RESPIRATORY SYSTEM						
Lung	(5)	(0)	(3)	(2)	(2)	(1)
Congestion	1 (20%)				1 (50%)	1 (100%)
Foreign Body	1 (20%)					
Hemorrhage			1 (33%)			
Infiltration Cellular, Histiocyte			1 (33%)	1 (50%)	1 (50%)	
Pleura, Fibrosis				1 (50%)		
Pleura, Granuloma				1 (50%)		
Nose	(4)	(0)	(2)	(0)	(0)	(0)
Autolysis						
Foreign Body			1 (50%)			
Hemorrhage			1 (50%)			
Inflammation, Suppurative			1 (50%)			
Trachea	(4)	(0)	(2)	(0)	(0)	(0)
SPECIAL SENSES SYSTEM						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0 BPA M	F1 2500.BPA M	F1 25000 BPA M
None						
<hr/>						
URINARY SYSTEM						
Kidney	(22)	(22)	(20)	(24)	(19)	(22)
Accumulation, Hyaline Droplet	2 (9%)					
Casts Protein	2 (9%)	1 (5%)		1 (4%)		
Infiltration Cellular, Polymorphonuclear						
Inflammation, Chronic Active						
Nephropathy	16 (73%)	20 (91%)	18 (90%)	19 (79%)	16 (84%)	17 (77%)
Polyarteritis						
Capsule, Lipidosis						
Cortex, Cyst	4 (18%)	7 (32%)	6 (30%)	2 (8%)	4 (21%)	5 (23%)
Pelvis, Dilatation				1 (4%)	1 (5%)	
Renal Tubule, Cyst	4 (18%)	6 (27%)	9 (45%)	7 (29%)	4 (21%)	7 (32%)
Urinary Bladder	(1)	(0)	(0)	(0)	(0)	(0)
Lumen, Dilatation	1 (100%)					

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 0.05 EE2 M

F1 0.50 EE2 M

F1 Veh.StDose M

F1 2.5 StDose M

F1 25.0 StDose M

F1 250.0StDose M

Disposition Summary

	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Animals Initially In Study	26	26	20	20	20	19
Early Deaths						
Interval Sacrifice	22	23	20	20	19	19
Moribund Sacrifice	2					
Natural Death	2	3			1	
Survivors						
Animals Examined Microscopically	26	26	20	20	20	19

ALIMENTARY SYSTEM

Esophagus	(4)	(3)	(0)	(0)	(1)	(0)
Foreign Body						
Perforation						
Periesophageal Tissue, Inflammation, Suppurative						
Periesophageal Tissue, Inflammation, Granulomatous						
Periesophageal Tissue, Necrosis						
Intestine Large, Colon	(3)	(0)	(0)	(0)	(0)	(0)
Intestine Small, Ileum	(3)	(0)	(0)	(0)	(0)	(0)
Intestine Small, Jejunum	(0)	(1)	(0)	(1)	(1)	(1)
Diverticulum		1 (100%)				
Liver	(26)	(26)	(20)	(20)	(20)	(19)
Angiectasis						
Basophilic Focus			1 (5%)	2 (10%)		
Cholangiofibrosis	1 (4%)					
Clear Cell Focus		2 (8%)	1 (5%)			
Cyst						
Deformity			1 (5%)			
Degeneration, Cystic	1 (4%)	1 (4%)	4 (20%)	4 (20%)	3 (15%)	1 (5%)
Eosinophilic Focus			1 (5%)			
Fatty Change	1 (4%)	4 (15%)		1 (5%)	1 (5%)	
Hematopoietic Cell Proliferation						
Hepatodiaphragmatic Nodule	4 (15%)	4 (15%)	1 (5%)	2 (10%)	3 (15%)	3 (16%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Infiltration Cellular, Mononuclear Cell	13 (50%)	5 (19%)	11 (55%)	13 (65%)	9 (45%)	13 (68%)
Inflammation, Granulomatous					1 (5%)	
Inflammation, Chronic Active						
Mixed Cell Focus	1 (4%)					
Pigmentation				1 (5%)	1 (5%)	
Polyarteritis						
Tension Lipidosis	1 (4%)	2 (8%)	1 (5%)		3 (15%)	2 (11%)
Vacuolization Cytoplasmic	2 (8%)	4 (15%)	6 (30%)	5 (25%)	10 (50%)	5 (26%)
Bile Duct, Cyst		1 (4%)	1 (5%)			
Bile Duct, Hyperplasia	3 (12%)	4 (15%)	8 (40%)	9 (45%)	5 (25%)	5 (26%)
Biliary Tract, Fibrosis				1 (5%)		
Capsule, Fibrosis						
Hepatocyte, Necrosis				1 (5%)		
Oval Cell, Hyperplasia						
Mesentery	(0)	(0)	(2)	(0)	(1)	(0)
Fat, Fibrosis			1 (50%)			
Fat, Hemorrhage			1 (50%)			
Fat, Inflammation, Chronic Active						
Fat, Necrosis			2 (100%)		1 (100%)	
Pancreas	(26)	(25)	(20)	(20)	(20)	(19)
Basophilic Focus	1 (4%)				1 (5%)	
Cyst Multilocular	1 (4%)					
Degeneration, Cystic						
Edema				1 (5%)		
Granuloma						
Infiltration Cellular, Lymphocyte					1 (5%)	
Inflammation, Chronic Active						1 (5%)
Pigmentation	10 (38%)	8 (32%)	11 (55%)	8 (40%)	9 (45%)	8 (42%)
Polyarteritis						
Acinus, Degeneration	18 (69%)	21 (84%)	18 (90%)	19 (95%)	12 (60%)	17 (89%)
Stomach, Forestomach	(4)	(3)	(0)	(0)	(1)	(0)
Cyst, Squamous						
Inflammation, Suppurative						
Inflammation, Chronic Active						
Epithelium, Hyperplasia						
Stomach, Glandular	(4)	(1)	(0)	(0)	(1)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
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CARDIOVASCULAR SYSTEM

Blood Vessel	(26)	(26)	(20)	(20)	(20)	(19)
Heart	(26)	(26)	(20)	(20)	(20)	(19)
Cardiomyopathy	24 (92%)	23 (88%)	17 (85%)	20 (100%)	19 (95%)	13 (68%)
Mineralization						1 (5%)
Pigmentation						
Polyarteritis						
Ventricle, Dilatation				1 (5%)		

ENDOCRINE SYSTEM

Adrenal Cortex	(26)	(26)	(20)	(20)	(20)	(19)
Accessory Adrenal Cortical Nodule		1 (4%)	1 (5%)			
Degeneration, Cystic						1 (5%)
Hyperplasia	2 (8%)		1 (5%)			
Hypertrophy			1 (5%)			
Metaplasia, Osseous			1 (5%)			
Vacuolization Cytoplasmic	3 (12%)	3 (12%)	2 (10%)	3 (15%)	3 (15%)	3 (16%)
Adrenal Medulla	(26)	(26)	(20)	(20)	(20)	(19)
Hyperplasia						1 (5%)
Islets, Pancreatic	(26)	(26)	(20)	(20)	(20)	(19)
Fibrosis						
Parathyroid Gland	(26)	(26)	(20)	(20)	(19)	(19)
Hyperplasia	6 (23%)	4 (15%)	4 (20%)	9 (45%)	3 (16%)	7 (37%)
Pituitary Gland	(26)	(26)	(20)	(20)	(20)	(19)
Angiectasis				1 (5%)		
Mineralization						
Vacuolization Cytoplasmic						1 (5%)
Pars Distalis, Cyst	3 (12%)	3 (12%)	1 (5%)	2 (10%)		1 (5%)
Pars Distalis, Cyst Multilocular						
Pars Distalis, Hyperplasia	7 (27%)	2 (8%)	8 (40%)	9 (45%)	3 (15%)	4 (21%)
Pars Intermedia, Cyst				1 (5%)		
Rathke's Cleft, Cyst		1 (4%)				

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Thyroid Gland	(25)	(24)	(20)	(20)	(20)	(19)
Infiltration Cellular, Lymphocyte					1 (5%)	
Ultimobranchial Cyst	3 (12%)	8 (33%)	6 (30%)	3 (15%)	9 (45%)	5 (26%)
C-cell, Hyperplasia	7 (28%)	9 (38%)	13 (65%)	9 (45%)	10 (50%)	11 (58%)
Follicular Cell, Hyperplasia	4 (16%)	2 (8%)	1 (5%)	1 (5%)	4 (20%)	1 (5%)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Coagulating Gland	(26)	(24)	(20)	(20)	(20)	(19)
Polyarteritis						
Ductus Deferens	(0)	(1)	(0)	(0)	(0)	(0)
Lumen, Dilatation		1 (100%)				
Epididymis	(26)	(26)	(20)	(20)	(20)	(19)
Exfoliated Germ Cell	4 (15%)	2 (8%)		3 (15%)	1 (5%)	2 (11%)
Granuloma Sperm				1 (5%)		
Hypospermia	3 (12%)	1 (4%)	1 (5%)	4 (20%)	2 (10%)	1 (5%)
Infiltration Cellular, Lymphocyte	1 (4%)	3 (12%)	1 (5%)	1 (5%)	4 (20%)	1 (5%)
Polyarteritis						
Fat Pad, Epididymal	(0)	(1)	(0)	(0)	(0)	(0)
Necrosis		1 (100%)				
Preputial Gland	(1)	(2)	(0)	(0)	(0)	(1)
Hyperkeratosis						
Infiltration Cellular, Lymphocyte						
Inflammation, Suppurative	1 (100%)	1 (50%)				1 (100%)
Duct, Dilatation	1 (100%)	1 (50%)				1 (100%)
Prostate, Dorsal/lateral Lobe	(26)	(26)	(20)	(20)	(20)	(18)
Corpora Amylacea						1 (6%)
Degeneration, Cystic		1 (4%)			1 (5%)	
Fibrosis	1 (4%)			1 (5%)	1 (5%)	
Infiltration Cellular, Lymphocyte	9 (35%)	4 (15%)	9 (45%)	5 (25%)	4 (20%)	8 (44%)
Inflammation, Suppurative	25 (96%)	25 (96%)	18 (90%)	19 (95%)	16 (80%)	16 (89%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Prostate, Ventral Lobe	(26)	(26)	(20)	(20)	(20)	(18)
Atrophy						
Fibrosis						
Infiltration Cellular, Lymphocyte	13 (50%)	13 (50%)	9 (45%)	8 (40%)	9 (45%)	9 (50%)
Inflammation, Suppurative	4 (15%)	5 (19%)	3 (15%)	2 (10%)	2 (10%)	6 (33%)
Polyarteritis						
Epithelium, Hyperplasia			1 (5%)	1 (5%)		2 (11%)
Seminal Vesicle	(26)	(24)	(20)	(20)	(20)	(19)
Atrophy						
Polyarteritis						
Lumen, Dilatation					1 (5%)	
Testes	(26)	(25)	(20)	(20)	(20)	(19)
Polyarteritis						
Seminiferous Tubule, Degeneration	12 (46%)	6 (24%)	6 (30%)	7 (35%)	9 (45%)	4 (21%)

HEMATOPOIETIC SYSTEM

Bone Marrow	(26)	(26)	(20)	(20)	(20)	(19)
Myeloid Cell, Hyperplasia	1 (4%)				2 (10%)	
Lymph Node	(0)	(0)	(0)	(0)	(0)	(1)
Degeneration, Cystic						
Mediastinal, Hyperplasia, Lymphoid						1 (100%)
Renal, Degeneration, Cystic						
Lymph Node, Mandibular	(1)	(0)	(0)	(0)	(1)	(1)
Congestion						
Degeneration, Cystic					1 (100%)	
Hemorrhage						
Hyperplasia, Lymphoid	1 (100%)				1 (100%)	1 (100%)
Infiltration Cellular, Plasma Cell					1 (100%)	1 (100%)
Lymph Node, Mesenteric	(1)	(0)	(0)	(1)	(0)	(0)
Degeneration, Cystic	1 (100%)			1 (100%)		
Hyperplasia, Lymphoid	1 (100%)					
Pigmentation				1 (100%)		
Spleen	(25)	(25)	(20)	(20)	(20)	(19)
Hematopoietic Cell Proliferation	2 (8%)			1 (5%)		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Hyperplasia, Lymphoid	1 (4%)					
Pigmentation	18 (72%)	18 (72%)	12 (60%)	14 (70%)	13 (65%)	18 (95%)
Polyarteritis						
Capsule, Fibrosis					1 (5%)	
Capsule, Inflammation, Chronic					1 (5%)	
Thymus	(26)	(24)	(20)	(20)	(20)	(19)
Atrophy	24 (92%)	21 (88%)	18 (90%)	19 (95%)	17 (85%)	18 (95%)
Hemorrhage			1 (5%)		1 (5%)	
Hyperplasia, Lymphoid					1 (5%)	

INTEGUMENTARY SYSTEM

Mammary Gland	(26)	(25)	(19)	(20)	(20)	(19)
Fibrosis						
Hyperplasia, Lobular	3 (12%)	2 (8%)		1 (5%)	2 (10%)	2 (11%)
Skin	(1)	(0)	(1)	(0)	(0)	(3)
Abscess	1 (100%)					
Cyst Epithelial Inclusion						2 (67%)
Foreign Body	1 (100%)					
Subcutaneous Tissue, Cyst						
Subcutaneous Tissue, Metaplasia, Osseous						

MUSCULOSKELETAL SYSTEM

Bone	(0)	(0)	(0)	(0)	(0)	(0)
Bone, Femur	(26)	(26)	(20)	(20)	(20)	(19)
Skeletal Muscle	(0)	(0)	(0)	(0)	(0)	(0)
Foreign Body						
Inflammation, Suppurative						
Necrosis						

NERVOUS SYSTEM

Brain, Brain Stem	(26)	(26)	(20)	(20)	(20)	(19)
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a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Hemorrhage						
Necrosis						
Brain, Cerebellum	(26)	(26)	(20)	(20)	(20)	(19)
Brain, Cerebrum	(26)	(26)	(20)	(20)	(20)	(19)
Cyst					1 (5%)	
Hemorrhage						
Necrosis						
Neuron, Degeneration						
Ventricle, Dilatation		2 (8%)				
Nerve Trigeminal	(2)	(1)	(0)	(0)	(0)	(0)
Peripheral Nerve, Sciatic	(2)	(1)	(0)	(0)	(0)	(0)
Peripheral Nerve, Tibial	(2)	(1)	(0)	(0)	(0)	(0)
Spinal Cord, Cervical	(2)	(1)	(0)	(0)	(0)	(0)
Spinal Cord, Lumbar	(2)	(1)	(0)	(0)	(0)	(0)
Axon, Degeneration	1 (50%)	1 (100%)				
Spinal Cord, Thoracic	(2)	(1)	(0)	(0)	(0)	(0)

RESPIRATORY SYSTEM

Lung	(4)	(3)	(1)	(1)	(1)	(0)
Congestion					1 (100%)	
Foreign Body						
Hemorrhage		1 (33%)				
Infiltration Cellular, Histiocyte		1 (33%)	1 (100%)			
Pleura, Fibrosis				1 (100%)		
Pleura, Granuloma						
Nose	(4)	(3)	(0)	(0)	(1)	(0)
Autolysis	1 (25%)	1 (33%)				
Foreign Body						
Hemorrhage						
Inflammation, Suppurative						
Trachea	(3)	(2)	(0)	(0)	(1)	(0)

SPECIAL SENSES SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh.StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
None						
URINARY SYSTEM						
Kidney	(26)	(25)	(20)	(20)	(20)	(19)
Accumulation, Hyaline Droplet						
Casts Protein	1 (4%)		1 (5%)			1 (5%)
Infiltration Cellular, Polymorphonuclear						
Inflammation, Chronic Active			1 (5%)			
Nephropathy	23 (88%)	23 (92%)	19 (95%)	20 (100%)	19 (95%)	17 (89%)
Polyarteritis						
Capsule, Lipidosis					1 (5%)	
Cortex, Cyst	3 (12%)	6 (24%)	2 (10%)	4 (20%)	6 (30%)	6 (32%)
Pelvis, Dilatation			1 (5%)	1 (5%)		
Renal Tubule, Cyst	10 (38%)	4 (16%)	5 (25%)	4 (20%)	8 (40%)	6 (32%)
Urinary Bladder	(1)	(0)	(0)	(0)	(0)	(0)
Lumen, Dilatation	1 (100%)					

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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Disposition Summary

Animals Initially In Study	20	22
Early Deaths		
Interval Sacrifice	20	22
Moribund Sacrifice		
Natural Death		
Survivors		
Animals Examined Microscopically	20	22

ALIMENTARY SYSTEM

Esophagus	(0)	(0)
Foreign Body		
Perforation		
Periesophageal Tissue, Inflammation, Suppurative		
Periesophageal Tissue, Inflammation, Granulomatous		
Periesophageal Tissue, Necrosis		
Intestine Large, Colon	(0)	(0)
Intestine Small, Ileum	(0)	(0)
Intestine Small, Jejunum	(0)	(0)
Diverticulum		
Liver	(20)	(22)
Angiectasis		
Basophilic Focus		1 (5%)
Cholangiofibrosis		
Clear Cell Focus	1 (5%)	1 (5%)
Cyst		
Deformity		
Degeneration, Cystic		
Eosinophilic Focus		1 (5%)
Fatty Change	2 (10%)	1 (5%)
Hematopoietic Cell Proliferation	1 (5%)	1 (5%)
Hepatodiaphragmatic Nodule	2 (10%)	1 (5%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Infiltration Cellular, Mononuclear Cell	11 (55%)	15 (68%)
Inflammation, Granulomatous		
Inflammation, Chronic Active		
Mixed Cell Focus		
Pigmentation		
Polyarteritis		1 (5%)
Tension Lipidosis	1 (5%)	2 (9%)
Vacuolization Cytoplasmic	4 (20%)	8 (36%)
Bile Duct, Cyst		
Bile Duct, Hyperplasia	5 (25%)	5 (23%)
Biliary Tract, Fibrosis		
Capsule, Fibrosis		
Hepatocyte, Necrosis		
Oval Cell, Hyperplasia		1 (5%)
Mesentery	(1)	(0)
Fat, Fibrosis		
Fat, Hemorrhage		
Fat, Inflammation, Chronic Active		
Fat, Necrosis	1 (100%)	
Pancreas	(20)	(22)
Basophilic Focus		
Cyst Multilocular	1 (5%)	
Degeneration, Cystic		
Edema		
Granuloma		
Infiltration Cellular, Lymphocyte		
Inflammation, Chronic Active		
Pigmentation	8 (40%)	10 (45%)
Polyarteritis		1 (5%)
Acinus, Degeneration	18 (90%)	20 (91%)
Stomach, Forestomach	(0)	(0)
Cyst, Squamous		
Inflammation, Suppurative		
Inflammation, Chronic Active		
Epithelium, Hyperplasia		
Stomach, Glandular	(0)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 2500.StDose M

F1 25000StDose M

CARDIOVASCULAR SYSTEM

Blood Vessel	(20)	(22)
Heart	(20)	(22)
Cardiomyopathy	18 (90%)	19 (86%)
Mineralization		
Pigmentation		
Polyarteritis		1 (5%)
Ventricle, Dilatation		

ENDOCRINE SYSTEM

Adrenal Cortex	(20)	(22)
Accessory Adrenal Cortical Nodule		
Degeneration, Cystic		
Hyperplasia		
Hypertrophy	1 (5%)	
Metaplasia, Osseous	1 (5%)	
Vacuolization Cytoplasmic	3 (15%)	2 (9%)
Adrenal Medulla	(20)	(22)
Hyperplasia		
Islets, Pancreatic	(20)	(22)
Fibrosis		1 (5%)
Parathyroid Gland	(19)	(22)
Hyperplasia	4 (21%)	8 (36%)
Pituitary Gland	(20)	(22)
Angiectasis		
Mineralization		
Vacuolization Cytoplasmic		
Pars Distalis, Cyst		2 (9%)
Pars Distalis, Cyst Multilocular	1 (5%)	
Pars Distalis, Hyperplasia	4 (20%)	7 (32%)
Pars Intermedia, Cyst		1 (5%)
Rathke's Cleft, Cyst		1 (5%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Thyroid Gland	(20)	(22)
Infiltration Cellular, Lymphocyte		
Ultimobranchial Cyst	4 (20%)	5 (23%)
C-cell, Hyperplasia	10 (50%)	12 (55%)
Follicular Cell, Hyperplasia		3 (14%)

GENERAL BODY SYSTEM

None

GENITAL SYSTEM

Coagulating Gland	(20)	(22)
Polyarteritis		1 (5%)
Ductus Deferens	(0)	(0)
Lumen, Dilatation		
Epididymis	(20)	(22)
Exfoliated Germ Cell	1 (5%)	1 (5%)
Granuloma Sperm		
Hypospermia	3 (15%)	1 (5%)
Infiltration Cellular, Lymphocyte	2 (10%)	2 (9%)
Polyarteritis		1 (5%)
Fat Pad, Epididymal	(1)	(1)
Necrosis	1 (100%)	1 (100%)
Preputial Gland	(0)	(0)
Hyperkeratosis		
Infiltration Cellular, Lymphocyte		
Inflammation, Suppurative		
Duct, Dilatation		
Prostate, Dorsal/lateral Lobe	(20)	(22)
Corpora Amylacea		
Degeneration, Cystic	1 (5%)	
Fibrosis		1 (5%)
Infiltration Cellular, Lymphocyte	8 (40%)	6 (27%)
Inflammation, Suppurative	19 (95%)	18 (82%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

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Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Prostate, Ventral Lobe	(20)	(22)
Atrophy		
Fibrosis		1 (5%)
Infiltration Cellular, Lymphocyte	8 (40%)	9 (41%)
Inflammation, Suppurative	4 (20%)	2 (9%)
Polyarteritis		1 (5%)
Epithelium, Hyperplasia		
Seminal Vesicle	(20)	(22)
Atrophy		
Polyarteritis		1 (5%)
Lumen, Dilatation		
Testes	(20)	(22)
Polyarteritis		1 (5%)
Seminiferous Tubule, Degeneration	9 (45%)	6 (27%)

HEMATOPOIETIC SYSTEM

Bone Marrow	(20)	(22)
Myeloid Cell, Hyperplasia	1 (5%)	
Lymph Node	(0)	(0)
Degeneration, Cystic		
Mediastinal, Hyperplasia, Lymphoid		
Renal, Degeneration, Cystic		
Lymph Node, Mandibular	(1)	(0)
Congestion		
Degeneration, Cystic		
Hemorrhage		
Hyperplasia, Lymphoid	1 (100%)	
Infiltration Cellular, Plasma Cell	1 (100%)	
Lymph Node, Mesenteric	(0)	(0)
Degeneration, Cystic		
Hyperplasia, Lymphoid		
Pigmentation		
Spleen	(20)	(22)
Hematopoietic Cell Proliferation	1 (5%)	2 (9%)

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Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
 Bisphenol A
CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Hyperplasia, Lymphoid		
Pigmentation	15 (75%)	18 (82%)
Polyarteritis		1 (5%)
Capsule, Fibrosis		
Capsule, Inflammation, Chronic		
Thymus	(20)	(22)
Atrophy	18 (90%)	21 (95%)
Hemorrhage		
Hyperplasia, Lymphoid		

INTEGUMENTARY SYSTEM

Mammary Gland	(17)	(22)
Fibrosis		
Hyperplasia, Lobular		1 (5%)
Skin	(1)	(0)
Abscess		
Cyst Epithelial Inclusion		
Foreign Body		
Subcutaneous Tissue, Cyst		
Subcutaneous Tissue, Metaplasia, Osseous		

MUSCULOSKELETAL SYSTEM

Bone	(0)	(0)
Bone, Femur	(20)	(22)
Skeletal Muscle	(0)	(0)
Foreign Body		
Inflammation, Suppurative		
Necrosis		

NERVOUS SYSTEM

Brain, Brain Stem	(20)	(22)
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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

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Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Hemorrhage		
Necrosis		
Brain, Cerebellum	(20)	(22)
Brain, Cerebrum	(20)	(22)
Cyst		
Hemorrhage		
Necrosis		
Neuron, Degeneration		1 (5%)
Ventricle, Dilatation		
Nerve Trigeminal	(0)	(0)
Peripheral Nerve, Sciatic	(0)	(0)
Peripheral Nerve, Tibial	(0)	(0)
Spinal Cord, Cervical	(0)	(0)
Spinal Cord, Lumbar	(0)	(0)
Axon, Degeneration		
Spinal Cord, Thoracic	(0)	(0)

RESPIRATORY SYSTEM

Lung	(0)	(2)
Congestion		
Foreign Body		
Hemorrhage		
Infiltration Cellular, Histiocyte		1 (50%)
Pleura, Fibrosis		
Pleura, Granuloma		
Nose	(0)	(0)
Autolysis		
Foreign Body		
Hemorrhage		
Inflammation, Suppurative		
Trachea	(0)	(0)

SPECIAL SENSES SYSTEM

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Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 2500.StDose M

F1 25000StDose M

None

URINARY SYSTEM

Kidney	(20)	(22)
Accumulation, Hyaline Droplet		
Casts Protein		1 (5%)
Infiltration Cellular, Polymorphonuclear		1 (5%)
Inflammation, Chronic Active		
Nephropathy	20 (100%)	21 (95%)
Polyarteritis		1 (5%)
Capsule, Lipidosis		
Cortex, Cyst	6 (30%)	4 (18%)
Pelvis, Dilatation		
Renal Tubule, Cyst	6 (30%)	8 (36%)
Urinary Bladder	(0)	(0)
Lumen, Dilatation		

*** END OF MALE ***

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

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1 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 Veh. Ctrl F

F1 2.5 BPA F

F1 25.0 BPA F

F1 250.0BPA F

F1 2500.BPA F

F1 25000 BPA F

Disposition Summary

	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
Animals Initially In Study	23	22	22	24	20	24
Early Deaths						
Interval Sacrifice	21	22	21	22	20	24
Moribund Sacrifice	1			2		
Natural Death	1		1			
Survivors						
Animals Examined Microscopically	23	22	22	24	20	24

ALIMENTARY SYSTEM

Esophagus	(3)	(0)	(1)	(2)	(0)	(0)
Diverticulum	1 (33%)					
Intestine Large, Cecum	(0)	(0)	(0)	(0)	(0)	(0)
Epithelium, Hyperplasia						
Intestine Large, Colon	(2)	(0)	(0)	(2)	(0)	(0)
Intestine Small, Ileum	(2)	(0)	(0)	(2)	(0)	(0)
Inflammation, Chronic Active						
Intestine Small, Jejunum	(0)	(0)	(0)	(0)	(0)	(0)
Inflammation, Chronic Active						
Liver	(23)	(22)	(22)	(24)	(20)	(24)
Basophilic Focus	1 (4%)			5 (21%)		1 (4%)
Cholangiofibrosis						
Clear Cell Focus						
Deformity			1 (5%)			
Degeneration, Cystic						
Eosinophilic Focus	1 (4%)				1 (5%)	
Fatty Change	2 (9%)	4 (18%)	2 (9%)	1 (4%)		1 (4%)
Hematopoietic Cell Proliferation		1 (5%)				
Hepatodiaphragmatic Nodule	2 (9%)	2 (9%)	1 (5%)	2 (8%)	1 (5%)	
Infiltration Cellular, Mononuclear Cell	4 (17%)	6 (27%)	4 (18%)	5 (21%)	5 (25%)	4 (17%)
Inflammation, Chronic Active	1 (4%)			1 (4%)		
Mixed Cell Focus				2 (8%)		
Tension Lipidosis	3 (13%)	3 (14%)	2 (9%)	2 (8%)	1 (5%)	1 (4%)
Vacuolization Cytoplasmic	2 (9%)	1 (5%)	1 (5%)	1 (4%)	1 (5%)	1 (4%)

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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
Bile Duct, Hyperplasia	3 (13%)	6 (27%)	5 (23%)	5 (21%)	3 (15%)	2 (8%)
Hepatocyte, Degeneration						
Hepatocyte, Necrosis	1 (4%)			1 (4%)		
Oval Cell, Hyperplasia				1 (4%)		
Mesentery	(1)	(0)	(2)	(1)	(0)	(1)
Fat, Necrosis	1 (100%)		2 (100%)	1 (100%)		1 (100%)
Pancreas	(23)	(22)	(22)	(24)	(20)	(24)
Basophilic Focus				1 (4%)	1 (5%)	
Cyst Multilocular						
Edema				1 (4%)		
Infiltration Cellular, Lymphocyte		2 (9%)			1 (5%)	
Infiltration Cellular, Polymorphonuclear						1 (4%)
Pigmentation	1 (4%)					
Acinus, Degeneration	13 (57%)	13 (59%)	14 (64%)	19 (79%)	13 (65%)	18 (75%)
Stomach, Forestomach	(2)	(0)	(1)	(2)	(0)	(1)
Cyst Epithelial Inclusion						1 (100%)
Stomach, Glandular	(2)	(0)	(0)	(2)	(0)	(0)
CARDIOVASCULAR SYSTEM						
Blood Vessel	(23)	(22)	(22)	(24)	(20)	(24)
Heart	(23)	(22)	(22)	(24)	(20)	(24)
Cardiomyopathy	7 (30%)	10 (45%)	9 (41%)	8 (33%)	9 (45%)	7 (29%)
Inflammation, Chronic Active	1 (4%)					
Polyarteritis	1 (4%)					
Myocardium, Necrosis	1 (4%)					
Pericardium, Fibrosis			1 (5%)			
ENDOCRINE SYSTEM						
Adrenal Cortex	(23)	(22)	(22)	(24)	(20)	(24)
Degeneration, Cystic	2 (9%)	2 (9%)	3 (14%)	2 (8%)	2 (10%)	2 (8%)
Hyperplasia			1 (5%)			
Hypertrophy	1 (4%)					
Vacuolization Cytoplasmic	2 (9%)		1 (5%)			

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
Adrenal Medulla	(23)	(22)	(22)	(24)	(20)	(24)
Hemorrhage						
Hyperplasia		1 (5%)				
Islets, Pancreatic	(23)	(22)	(22)	(24)	(20)	(24)
Parathyroid Gland	(23)	(21)	(20)	(23)	(20)	(23)
Hyperplasia	2 (9%)		3 (15%)	2 (9%)	1 (5%)	1 (4%)
Pituitary Gland	(23)	(22)	(22)	(24)	(20)	(24)
Angiectasis	1 (4%)		1 (5%)			
Vacuolization Cytoplasmic				1 (4%)		
Pars Distalis, Cyst	2 (9%)			2 (8%)	1 (5%)	2 (8%)
Pars Distalis, Hyperplasia	18 (78%)	17 (77%)	18 (82%)	15 (63%)	16 (80%)	20 (83%)
Pars Intermedia, Cyst						
Thyroid Gland	(23)	(22)	(21)	(24)	(20)	(24)
Ectopic Thymus						
Infiltration Cellular, Lymphocyte						
Ultimobranchial Cyst	7 (30%)	7 (32%)	5 (24%)	8 (33%)	6 (30%)	11 (46%)
C-cell, Hyperplasia	14 (61%)	11 (50%)	15 (71%)	12 (50%)	8 (40%)	16 (67%)
Follicle, Cyst		1 (5%)				
Follicular Cell, Hyperplasia						
GENERAL BODY SYSTEM						
Tissue NOS	(0)	(0)	(0)	(0)	(0)	(0)
GENITAL SYSTEM						
Clitoral Gland	(0)	(0)	(1)	(0)	(2)	(0)
Atrophy						
Hyperkeratosis					1 (50%)	
Inflammation, Suppurative			1 (100%)		2 (100%)	
Duct, Dilatation			1 (100%)		2 (100%)	
Fat Pad, Ovarian/parametrial	(1)	(0)	(0)	(0)	(0)	(2)
Necrosis	1 (100%)					2 (100%)
Ovary	(23)	(22)	(22)	(24)	(20)	(24)
Atrophy	10 (43%)	7 (32%)	9 (41%)	14 (58%)	11 (55%)	11 (46%)

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Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
Cyst	1 (4%)		2 (9%)		1 (5%)	
Degeneration, Hyaline						
Diestrus	15 (65%)	12 (55%)	8 (36%)	12 (50%)	8 (40%)	9 (38%)
Estrus				1 (4%)		1 (4%)
Fibrosis						
Hyperplasia, Sertoliform						
Hyperplasia, Tubulostromal			1 (5%)			
Metestrus	3 (13%)	3 (14%)	4 (18%)	6 (25%)	1 (5%)	5 (21%)
Pigmentation						
Proestrus	1 (4%)	3 (14%)	3 (14%)	1 (4%)	3 (15%)	
Bilateral, Bursa, Cyst	1 (4%)					
Bursa, Cyst			3 (14%)	2 (8%)	1 (5%)	3 (13%)
Corpus Luteum, Cyst					2 (10%)	1 (4%)
Corpus Luteum, Depletion	4 (17%)	4 (18%)	7 (32%)	4 (17%)	8 (40%)	9 (38%)
Follicle, Cyst	8 (35%)	3 (14%)	10 (45%)	5 (21%)	10 (50%)	11 (46%)
Follicle, Cyst, Multiple		1 (5%)				
Follicle, Depletion			1 (5%)			
Interstitial Cell, Hypertrophy	4 (17%)	4 (18%)	6 (27%)	3 (13%)	8 (40%)	9 (38%)
Periovarian Tissue, Cyst						
Rete Ovarii, Cyst		1 (5%)				
Oviduct	(23)	(22)	(21)	(24)	(20)	(24)
Infiltration Cellular, Polymorphonuclear Epithelium, Hyperplasia						
Uterus	(23)	(22)	(21)	(24)	(20)	(24)
Apoptosis	2 (9%)	1 (5%)	4 (19%)	5 (21%)	5 (25%)	9 (38%)
Atrophy			1 (5%)			
Diestrus	10 (43%)	12 (55%)	6 (29%)	11 (46%)	8 (40%)	5 (21%)
Estrus	4 (17%)	2 (9%)	4 (19%)	5 (21%)	6 (30%)	9 (38%)
Hyperplasia, Stromal	1 (4%)					
Infiltration Cellular, Polymorphonuclear						
Metaplasia, Squamous	1 (4%)	1 (5%)	4 (19%)	3 (13%)	3 (15%)	5 (21%)
Metestrus	7 (30%)	4 (18%)	7 (33%)	7 (29%)	2 (10%)	8 (33%)
Proestrus	2 (9%)	4 (18%)	3 (14%)	1 (4%)	4 (20%)	2 (8%)
Cervix, Cyst				1 (4%)		
Cervix, Cyst, Squamous						
Cervix, Dilatation			1 (5%)			

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Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
Endometrial Glands, Hyperplasia					1 (5%)	1 (4%)
Endometrium, Cyst		1 (5%)	1 (5%)	3 (13%)		
Endometrium, Hyperplasia	2 (9%)	7 (32%)	5 (24%)	7 (29%)	5 (25%)	2 (8%)
Endometrium, Hyperplasia, Cystic Lumen, Dilatation	5 (22%)	1 (5%)	4 (19%)	3 (13%)	7 (35%)	4 (17%)
Vagina	(23)	(22)	(21)	(24)	(20)	(24)
Atrophy			1 (5%)			
Cyst, Squamous		1 (5%)		1 (4%)		
Diestrus	11 (48%)	11 (50%)	7 (33%)	10 (42%)	9 (45%)	7 (29%)
Estrus	3 (13%)	2 (9%)	3 (14%)	5 (21%)	7 (35%)	9 (38%)
Infiltration Cellular, Polymorphonuclear				1 (4%)		
Metestrus	7 (30%)	5 (23%)	8 (38%)	8 (33%)	2 (10%)	8 (33%)
Proestrus	2 (9%)	4 (18%)	2 (10%)	1 (4%)	2 (10%)	
Epithelium, Hyperplasia	3 (13%)	2 (9%)	2 (10%)	4 (17%)	6 (30%)	8 (33%)
Epithelium, Mucification	10 (43%)	12 (55%)	7 (33%)	9 (38%)	7 (35%)	8 (33%)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(23)	(22)	(22)	(24)	(20)	(24)
Myeloid Cell, Hyperplasia	1 (4%)					
Lymph Node	(0)	(0)	(1)	(1)	(0)	(0)
Lumbar, Infiltration Cellular, Plasma Cell			1 (100%)			
Mediastinal, Hyperplasia, Lymphoid				1 (100%)		
Mediastinal, Infiltration Cellular, Mast Cell				1 (100%)		
Renal, Hemorrhage				1 (100%)		
Renal, Pigmentation				1 (100%)		
Renal, Sinus, Dilatation				1 (100%)		
Lymph Node, Mandibular	(0)	(1)	(1)	(1)	(0)	(0)
Hyperplasia, Lymphoid		1 (100%)				
Infiltration Cellular, Plasma Cell		1 (100%)	1 (100%)	1 (100%)		
Lymph Node, Mesenteric	(0)	(0)	(0)	(0)	(0)	(0)
Degeneration, Cystic						
Infiltration Cellular, Plasma Cell						
Spleen	(23)	(22)	(22)	(24)	(20)	(24)
Hematopoietic Cell Proliferation	3 (13%)	3 (14%)	2 (9%)	3 (13%)	1 (5%)	1 (4%)

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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
Pigmentation	22 (96%)	21 (95%)	20 (91%)	24 (100%)	19 (95%)	23 (96%)
Polyarteritis	1 (4%)			1 (4%)		
Thymus	(23)	(22)	(22)	(24)	(20)	(24)
Atrophy	20 (87%)	20 (91%)	18 (82%)	21 (88%)	16 (80%)	22 (92%)
Cyst						
Cyst Multilocular						
Hemorrhage						
Hyperplasia, Lymphoid						1 (4%)
Epithelial Cell, Hyperplasia						

INTEGUMENTARY SYSTEM

Mammary Gland	(23)	(22)	(22)	(24)	(20)	(24)
Atypical Focus		3 (14%)	2 (9%)	2 (8%)		
Galactocele			1 (5%)		1 (5%)	
Hyperplasia, Lobular	10 (43%)	14 (64%)	13 (59%)	15 (63%)	13 (65%)	12 (50%)
Duct, Dilatation	2 (9%)	2 (9%)	7 (32%)	1 (4%)	2 (10%)	2 (8%)
Skin	(0)	(0)	(0)	(0)	(1)	(0)
Edema					1 (100%)	
Inflammation, Chronic Active					1 (100%)	
Ulcer					1 (100%)	
Epithelium, Hyperplasia					1 (100%)	

MUSCULOSKELETAL SYSTEM

Bone	(0)	(1)	(0)	(0)	(0)	(0)
Rib, Fibrosis		1 (100%)				
Bone, Femur	(23)	(22)	(22)	(24)	(20)	(24)
Skeletal Muscle	(0)	(0)	(0)	(0)	(0)	(0)

NERVOUS SYSTEM

Brain, Brain Stem	(23)	(22)	(22)	(24)	(20)	(24)
Compression			1 (5%)			

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
Brain, Cerebellum	(23)	(22)	(22)	(24)	(20)	(24)
Brain, Cerebrum	(23)	(22)	(22)	(24)	(20)	(24)
Cyst						
Hemorrhage	1 (4%)					
Metaplasia, Osseous						
Meninges, Cyst						
Neuron, Degeneration						
Ventricle, Dilatation						
Nerve Trigeminal	(1)	(0)	(1)	(0)	(0)	(4)
Peripheral Nerve, Sciatic	(1)	(0)	(1)	(0)	(0)	(4)
Peripheral Nerve, Tibial	(1)	(0)	(1)	(0)	(0)	(4)
Spinal Cord, Cervical	(1)	(0)	(1)	(0)	(0)	(4)
Hemorrhage						
Polyarteritis						
Spinal Cord, Lumbar	(1)	(0)	(1)	(0)	(0)	(4)
Axon, Degeneration						
Spinal Cord, Thoracic	(1)	(0)	(1)	(0)	(0)	(4)
RESPIRATORY SYSTEM						
Lung	(2)	(1)	(4)	(3)	(0)	(0)
Congestion						
Foreign Body			1 (25%)			
Hemorrhage	1 (50%)					
Infiltration Cellular, Histiocyte			3 (75%)	2 (67%)		
Inflammation, Chronic Active	1 (50%)		1 (25%)			
Mineralization			1 (25%)			
Pigmentation			1 (25%)			
Polyarteritis	1 (50%)					
Pleura, Abscess		1 (100%)				
Pleura, Fibrosis		1 (100%)	1 (25%)			
Pleura, Foreign Body		1 (100%)				
Nose	(2)	(0)	(1)	(2)	(0)	(0)
Trachea	(2)	(0)	(1)	(2)	(0)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000 BPA F
SPECIAL SENSES SYSTEM						
Eye	(0)	(0)	(0)	(0)	(0)	(0)
Cataract						
Hemorrhage						
Bilateral, Cataract						
Zymbal's Gland	(0)	(0)	(0)	(0)	(0)	(0)
URINARY SYSTEM						
Kidney	(23)	(22)	(22)	(24)	(20)	(24)
Accumulation, Hyaline Droplet				1 (4%)		
Casts Protein	2 (9%)	4 (18%)	2 (9%)	4 (17%)	3 (15%)	1 (4%)
Inflammation, Chronic Active						1 (4%)
Mineralization	11 (48%)	5 (23%)	11 (50%)	12 (50%)	11 (55%)	16 (67%)
Nephropathy	6 (26%)	7 (32%)	11 (50%)	8 (33%)	11 (55%)	7 (29%)
Pigmentation			1 (5%)	1 (4%)		
Polyarteritis	1 (4%)			1 (4%)		
Cortex, Cyst	2 (9%)	2 (9%)	2 (9%)	4 (17%)	3 (15%)	2 (8%)
Interstitial Cell, Hyperplasia						
Renal Tubule, Cyst		7 (32%)	3 (14%)	3 (13%)	3 (15%)	1 (4%)
Renal Tubule, Dilatation						
Renal Tubule, Hypertrophy		1 (5%)				

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
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Disposition Summary

Animals Initially In Study	26	26	20	22	20	22
Early Deaths						
Interval Sacrifice	24	26	20	22	20	22
Moribund Sacrifice	1					
Natural Death	1					
Survivors						
Animals Examined Microscopically	26	26	20	22	20	22

ALIMENTARY SYSTEM

Esophagus	(2)	(0)	(0)	(0)	(0)	(0)
Diverticulum						
Intestine Large, Cecum	(0)	(1)	(0)	(0)	(0)	(0)
Epithelium, Hyperplasia		1 (100%)				
Intestine Large, Colon	(1)	(0)	(0)	(0)	(0)	(0)
Intestine Small, Ileum	(1)	(0)	(0)	(0)	(0)	(0)
Inflammation, Chronic Active						
Intestine Small, Jejunum	(0)	(0)	(0)	(0)	(0)	(0)
Inflammation, Chronic Active						
Liver	(26)	(26)	(20)	(22)	(20)	(22)
Basophilic Focus	3 (12%)	3 (12%)		1 (5%)	1 (5%)	2 (9%)
Cholangiofibrosis			1 (5%)			
Clear Cell Focus	1 (4%)				1 (5%)	
Deformity						
Degeneration, Cystic				1 (5%)		
Eosinophilic Focus		1 (4%)			1 (5%)	1 (5%)
Fatty Change	1 (4%)		1 (5%)	2 (9%)	2 (10%)	4 (18%)
Hematopoietic Cell Proliferation						
Hepatodiaphragmatic Nodule	1 (4%)	1 (4%)	1 (5%)	2 (9%)	1 (5%)	1 (5%)
Infiltration Cellular, Mononuclear Cell	7 (27%)	2 (8%)	2 (10%)	10 (45%)	7 (35%)	7 (32%)
Inflammation, Chronic Active	1 (4%)			1 (5%)		
Mixed Cell Focus			1 (5%)			
Tension Lipidosis	3 (12%)		1 (5%)	2 (9%)	2 (10%)	1 (5%)
Vacuolization Cytoplasmic	2 (8%)	1 (4%)	2 (10%)	1 (5%)	3 (15%)	4 (18%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Bile Duct, Hyperplasia	8 (31%)	4 (15%)	4 (20%)	2 (9%)	4 (20%)	3 (14%)
Hepatocyte, Degeneration						1 (5%)
Hepatocyte, Necrosis	1 (4%)			1 (5%)		
Oval Cell, Hyperplasia						
Mesentery	(1)	(2)	(1)	(0)	(0)	(0)
Fat, Necrosis	1 (100%)	2 (100%)	1 (100%)			
Pancreas	(26)	(26)	(20)	(22)	(20)	(22)
Basophilic Focus	2 (8%)					
Cyst Multilocular						1 (5%)
Edema						
Infiltration Cellular, Lymphocyte	1 (4%)		1 (5%)			1 (5%)
Infiltration Cellular, Polymorphonuclear						
Pigmentation	1 (4%)	1 (4%)	4 (20%)	1 (5%)	1 (5%)	
Acinus, Degeneration	20 (77%)	18 (69%)	16 (80%)	14 (64%)	13 (65%)	14 (64%)
Stomach, Forestomach	(2)	(0)	(0)	(0)	(0)	(0)
Cyst Epithelial Inclusion						
Stomach, Glandular	(1)	(0)	(0)	(0)	(0)	(1)

CARDIOVASCULAR SYSTEM

Blood Vessel	(26)	(26)	(20)	(22)	(20)	(22)
Heart	(26)	(26)	(20)	(22)	(20)	(22)
Cardiomyopathy	8 (31%)	17 (65%)	6 (30%)	8 (36%)	7 (35%)	7 (32%)
Inflammation, Chronic Active						
Polyarteritis						
Myocardium, Necrosis						
Pericardium, Fibrosis						

ENDOCRINE SYSTEM

Adrenal Cortex	(26)	(26)	(20)	(22)	(20)	(22)
Degeneration, Cystic		6 (23%)		1 (5%)		2 (9%)
Hyperplasia						
Hypertrophy						
Vacuolization Cytoplasmic						

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Experiment Number: 10034 - 03

Test Type: CHRONIC

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Adrenal Medulla	(26)	(26)	(20)	(22)	(20)	(22)
Hemorrhage		1 (4%)				
Hyperplasia		1 (4%)				
Islets, Pancreatic	(26)	(26)	(20)	(22)	(20)	(22)
Parathyroid Gland	(26)	(25)	(20)	(21)	(20)	(22)
Hyperplasia	2 (8%)	1 (4%)	1 (5%)	1 (5%)		2 (9%)
Pituitary Gland	(25)	(26)	(20)	(22)	(20)	(22)
Angiectasis	2 (8%)	6 (23%)		2 (9%)	1 (5%)	
Vacuolization Cytoplasmic						
Pars Distalis, Cyst		4 (15%)	3 (15%)			
Pars Distalis, Hyperplasia	20 (80%)	25 (96%)	18 (90%)	16 (73%)	14 (70%)	20 (91%)
Pars Intermedia, Cyst	1 (4%)					
Thyroid Gland	(26)	(26)	(20)	(22)	(20)	(22)
Ectopic Thymus						
Infiltration Cellular, Lymphocyte	1 (4%)					1 (5%)
Ultimobranchial Cyst	7 (27%)	11 (42%)	4 (20%)	6 (27%)	7 (35%)	4 (18%)
C-cell, Hyperplasia	11 (42%)	13 (50%)	10 (50%)	16 (73%)	11 (55%)	12 (55%)
Follicle, Cyst						
Follicular Cell, Hyperplasia	1 (4%)			1 (5%)		
GENERAL BODY SYSTEM						
Tissue NOS	(0)	(0)	(0)	(0)	(0)	(0)
GENITAL SYSTEM						
Clitoral Gland	(1)	(0)	(0)	(1)	(0)	(0)
Atrophy				1 (100%)		
Hyperkeratosis						
Inflammation, Suppurative	1 (100%)					
Duct, Dilatation	1 (100%)					
Fat Pad, Ovarian/parametrial	(1)	(0)	(0)	(0)	(0)	(0)
Necrosis	1 (100%)					
Ovary	(25)	(26)	(20)	(22)	(20)	(22)
Atrophy	9 (36%)	26 (100%)	10 (50%)	9 (41%)	11 (55%)	6 (27%)

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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Cyst	1 (4%)	2 (8%)		2 (9%)		
Degeneration, Hyaline		1 (4%)				
Diestrus	12 (48%)		10 (50%)	11 (50%)	9 (45%)	12 (55%)
Estrus						
Fibrosis		1 (4%)				
Hyperplasia, Sertoliform		1 (4%)				
Hyperplasia, Tubulostromal	1 (4%)					
Metestrus	6 (24%)		7 (35%)	5 (23%)	4 (20%)	4 (18%)
Pigmentation		1 (4%)				
Proestrus	1 (4%)		1 (5%)	2 (9%)	5 (25%)	4 (18%)
Bilateral, Bursa, Cyst						
Bursa, Cyst	1 (4%)	4 (15%)				
Corpus Luteum, Cyst	1 (4%)		2 (10%)	2 (9%)	2 (10%)	5 (23%)
Corpus Luteum, Depletion	6 (24%)	26 (100%)	2 (10%)	4 (18%)	2 (10%)	2 (9%)
Follicle, Cyst	9 (36%)	26 (100%)	5 (25%)	6 (27%)	4 (20%)	7 (32%)
Follicle, Cyst, Multiple						
Follicle, Depletion						
Interstitial Cell, Hypertrophy	5 (20%)	26 (100%)	4 (20%)	3 (14%)	1 (5%)	2 (9%)
Periovarian Tissue, Cyst						2 (9%)
Rete Ovarii, Cyst						
Oviduct	(25)	(26)	(20)	(22)	(20)	(22)
Infiltration Cellular, Polymorphonuclear Epithelium, Hyperplasia		1 (4%) 1 (4%)				
Uterus	(25)	(26)	(20)	(22)	(20)	(22)
Apoptosis	6 (24%)	18 (69%)	2 (10%)	3 (14%)	2 (10%)	2 (9%)
Atrophy			1 (5%)			
Diestrus	8 (32%)		7 (35%)	10 (45%)	7 (35%)	7 (32%)
Estrus	6 (24%)	21 (81%)	2 (10%)	4 (18%)	2 (10%)	2 (9%)
Hyperplasia, Stromal						1 (5%)
Infiltration Cellular, Polymorphonuclear	1 (4%)	1 (4%)	1 (5%)			
Metaplasia, Squamous	2 (8%)	14 (54%)		2 (9%)	1 (5%)	1 (5%)
Metestrus	9 (36%)	5 (19%)	8 (40%)	7 (32%)	6 (30%)	8 (36%)
Proestrus	2 (8%)		2 (10%)	1 (5%)	5 (25%)	5 (23%)
Cervix, Cyst						
Cervix, Cyst, Squamous				1 (5%)		
Cervix, Dilatation						

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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Endometrial Glands, Hyperplasia	1 (4%)	2 (8%)	1 (5%)		1 (5%)	1 (5%)
Endometrium, Cyst	2 (8%)	2 (8%)		1 (5%)	2 (10%)	2 (9%)
Endometrium, Hyperplasia	4 (16%)		6 (30%)	9 (41%)	5 (25%)	7 (32%)
Endometrium, Hyperplasia, Cystic Lumen, Dilatation	6 (24%)	14 (54%)	2 (10%)	4 (18%)	2 (10%)	2 (9%)
Vagina	1 (4%)		1 (5%)		1 (5%)	4 (18%)
Atrophy	(25)	(26)	(20)	(22)	(20)	(22)
Cyst, Squamous			1 (5%)			
Diestrus	10 (40%)		6 (30%)	11 (50%)	9 (45%)	10 (45%)
Estrus	6 (24%)	20 (77%)	2 (10%)	3 (14%)	2 (10%)	2 (9%)
Infiltration Cellular, Polymorphonuclear	1 (4%)					
Metestrus	8 (32%)	6 (23%)	9 (45%)	6 (27%)	4 (20%)	5 (23%)
Proestrus	1 (4%)		2 (10%)	2 (9%)	5 (25%)	5 (23%)
Epithelium, Hyperplasia	7 (28%)	20 (77%)	2 (10%)	4 (18%)	2 (10%)	1 (5%)
Epithelium, Mucification	15 (60%)	18 (69%)	8 (40%)	11 (50%)	9 (45%)	11 (50%)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(26)	(26)	(20)	(22)	(20)	(22)
Myeloid Cell, Hyperplasia						1 (5%)
Lymph Node	(0)	(0)	(0)	(0)	(0)	(0)
Lumbar, Infiltration Cellular, Plasma Cell						
Mediastinal, Hyperplasia, Lymphoid						
Mediastinal, Infiltration Cellular, Mast Cell						
Renal, Hemorrhage						
Renal, Pigmentation						
Renal, Sinus, Dilatation						
Lymph Node, Mandibular	(1)	(1)	(0)	(0)	(0)	(1)
Hyperplasia, Lymphoid	1 (100%)	1 (100%)				1 (100%)
Infiltration Cellular, Plasma Cell	1 (100%)	1 (100%)				1 (100%)
Lymph Node, Mesenteric	(0)	(0)	(0)	(0)	(0)	(0)
Degeneration, Cystic						
Infiltration Cellular, Plasma Cell						
Spleen	(26)	(26)	(20)	(22)	(20)	(22)
Hematopoietic Cell Proliferation		1 (4%)	2 (10%)		1 (5%)	3 (14%)

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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Pigmentation	26 (100%)	26 (100%)	20 (100%)	22 (100%)	20 (100%)	22 (100%)
Polyarteritis						
Thymus	(25)	(26)	(20)	(22)	(20)	(22)
Atrophy	20 (80%)	24 (92%)	18 (90%)	19 (86%)	18 (90%)	17 (77%)
Cyst			1 (5%)			
Cyst Multilocular						
Hemorrhage	1 (4%)					
Hyperplasia, Lymphoid				1 (5%)		
Epithelial Cell, Hyperplasia		1 (4%)				

INTEGUMENTARY SYSTEM

Mammary Gland	(26)	(26)	(20)	(22)	(20)	(22)
Atypical Focus			1 (5%)			
Galactocele		4 (15%)	1 (5%)			
Hyperplasia, Lobular	13 (50%)	23 (88%)	15 (75%)	12 (55%)	8 (40%)	12 (55%)
Duct, Dilatation	3 (12%)	22 (85%)	4 (20%)	2 (9%)	1 (5%)	1 (5%)
Skin	(0)	(0)	(0)	(0)	(0)	(1)
Edema						
Inflammation, Chronic Active						
Ulcer						
Epithelium, Hyperplasia						

MUSCULOSKELETAL SYSTEM

Bone	(0)	(0)	(0)	(0)	(0)	(0)
Rib, Fibrosis						
Bone, Femur	(26)	(26)	(20)	(22)	(20)	(22)
Skeletal Muscle	(0)	(0)	(0)	(0)	(0)	(0)

NERVOUS SYSTEM

Brain, Brain Stem	(26)	(26)	(20)	(22)	(20)	(22)
Compression						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Brain, Cerebellum	(26)	(26)	(20)	(22)	(20)	(22)
Brain, Cerebrum	(26)	(26)	(20)	(22)	(20)	(22)
Cyst						
Hemorrhage						
Metaplasia, Osseous						
Meninges, Cyst			1 (5%)			
Neuron, Degeneration		1 (4%)				
Ventricle, Dilatation						
Nerve Trigeminal	(2)	(4)	(0)	(0)	(0)	(1)
Peripheral Nerve, Sciatic	(2)	(4)	(0)	(0)	(0)	(1)
Peripheral Nerve, Tibial	(2)	(4)	(0)	(0)	(0)	(1)
Spinal Cord, Cervical	(2)	(4)	(0)	(0)	(0)	(1)
Hemorrhage						
Polyarteritis						
Spinal Cord, Lumbar	(2)	(4)	(0)	(0)	(0)	(1)
Axon, Degeneration						
Spinal Cord, Thoracic	(2)	(4)	(0)	(0)	(0)	(1)
RESPIRATORY SYSTEM						
Lung	(2)	(1)	(1)	(0)	(1)	(1)
Congestion	1 (50%)					
Foreign Body						
Hemorrhage						
Infiltration Cellular, Histiocyte		1 (100%)	1 (100%)		1 (100%)	1 (100%)
Inflammation, Chronic Active						
Mineralization						
Pigmentation						
Polyarteritis						
Pleura, Abscess						
Pleura, Fibrosis						
Pleura, Foreign Body						
Nose	(1)	(0)	(0)	(0)	(0)	(0)
Trachea	(2)	(0)	(0)	(0)	(0)	(0)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
SPECIAL SENSES SYSTEM						
Eye	(1)	(0)	(1)	(0)	(0)	(0)
Cataract			1 (100%)			
Hemorrhage	1 (100%)					
Bilateral, Cataract	1 (100%)					
Zymbal's Gland	(0)	(0)	(0)	(0)	(0)	(1)
URINARY SYSTEM						
Kidney	(26)	(26)	(20)	(22)	(20)	(22)
Accumulation, Hyaline Droplet						
Casts Protein	2 (8%)	4 (15%)	3 (15%)	1 (5%)	1 (5%)	
Inflammation, Chronic Active						
Mineralization	17 (65%)	14 (54%)	13 (65%)	11 (50%)	11 (55%)	14 (64%)
Nephropathy	13 (50%)	15 (58%)	10 (50%)	10 (45%)	10 (50%)	11 (50%)
Pigmentation						
Polyarteritis						
Cortex, Cyst	4 (15%)		3 (15%)	2 (9%)	6 (30%)	4 (18%)
Interstitial Cell, Hyperplasia						
Renal Tubule, Cyst	5 (19%)	4 (15%)	4 (20%)	3 (14%)	4 (20%)	4 (18%)
Renal Tubule, Dilatation						
Renal Tubule, Hypertrophy			1 (5%)			

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
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Disposition Summary

Animals Initially In Study	20	22
Early Deaths		
Interval Sacrifice	20	20
Moribund Sacrifice		2
Natural Death		
Survivors		
Animals Examined Microscopically	20	22

ALIMENTARY SYSTEM

Esophagus	(0)	(2)
Diverticulum		
Intestine Large, Cecum	(0)	(0)
Epithelium, Hyperplasia		
Intestine Large, Colon	(0)	(2)
Intestine Small, Ileum	(1)	(2)
Inflammation, Chronic Active	1 (100%)	
Intestine Small, Jejunum	(1)	(0)
Inflammation, Chronic Active	1 (100%)	
Liver	(20)	(22)
Basophilic Focus	3 (15%)	2 (9%)
Cholangiofibrosis		
Clear Cell Focus		
Deformity		
Degeneration, Cystic		
Eosinophilic Focus	1 (5%)	2 (9%)
Fatty Change	1 (5%)	
Hematopoietic Cell Proliferation		
Hepatodiaphragmatic Nodule	2 (10%)	5 (23%)
Infiltration Cellular, Mononuclear Cell	2 (10%)	8 (36%)
Inflammation, Chronic Active		1 (5%)
Mixed Cell Focus	1 (5%)	
Tension Lipidosis	4 (20%)	4 (18%)
Vacuolization Cytoplasmic		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Bile Duct, Hyperplasia	3 (15%)	8 (36%)
Hepatocyte, Degeneration		
Hepatocyte, Necrosis		
Oval Cell, Hyperplasia		
Mesentery	(2)	(0)
Fat, Necrosis	2 (100%)	
Pancreas	(20)	(22)
Basophilic Focus		
Cyst Multilocular	1 (5%)	
Edema		
Infiltration Cellular, Lymphocyte		
Infiltration Cellular, Polymorphonuclear		
Pigmentation	4 (20%)	2 (9%)
Acinus, Degeneration	17 (85%)	17 (77%)
Stomach, Forestomach	(0)	(2)
Cyst Epithelial Inclusion		
Stomach, Glandular	(0)	(2)

CARDIOVASCULAR SYSTEM

Blood Vessel	(20)	(22)
Heart	(20)	(22)
Cardiomyopathy	6 (30%)	7 (32%)
Inflammation, Chronic Active		1 (5%)
Polyarteritis		1 (5%)
Myocardium, Necrosis		1 (5%)
Pericardium, Fibrosis		

ENDOCRINE SYSTEM

Adrenal Cortex	(20)	(22)
Degeneration, Cystic		
Hyperplasia		
Hypertrophy		
Vacuolization Cytoplasmic	1 (5%)	1 (5%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Adrenal Medulla	(20)	(22)
Hemorrhage		
Hyperplasia		
Islets, Pancreatic	(20)	(22)
Parathyroid Gland	(19)	(22)
Hyperplasia	2 (11%)	
Pituitary Gland	(20)	(22)
Angiectasis		
Vacuolization Cytoplasmic		
Pars Distalis, Cyst		2 (9%)
Pars Distalis, Hyperplasia	16 (80%)	18 (82%)
Pars Intermedia, Cyst		
Thyroid Gland	(20)	(22)
Ectopic Thymus	1 (5%)	
Infiltration Cellular, Lymphocyte		
Ultimobranchial Cyst	6 (30%)	6 (27%)
C-cell, Hyperplasia	13 (65%)	9 (41%)
Follicle, Cyst		
Follicular Cell, Hyperplasia		

GENERAL BODY SYSTEM

Tissue NOS (0) (1)

GENITAL SYSTEM

Clitoral Gland (1) (0)

 Atrophy

 Hyperkeratosis

 Inflammation, Suppurative 1 (100%)

 Duct, Dilatation 1 (100%)

Fat Pad, Ovarian/parametrial (0) (1)

 Necrosis 1 (100%)

Ovary (20) (22)

 Atrophy 12 (60%) 15 (68%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Cyst		
Degeneration, Hyaline		
Diestrus	11 (55%)	13 (59%)
Estrus		
Fibrosis		
Hyperplasia, Sertoliform		
Hyperplasia, Tubulostromal		
Metestrus	5 (25%)	2 (9%)
Pigmentation		
Proestrus	1 (5%)	1 (5%)
Bilateral, Bursa, Cyst		
Bursa, Cyst	1 (5%)	
Corpus Luteum, Cyst	1 (5%)	
Corpus Luteum, Depletion	3 (15%)	6 (27%)
Follicle, Cyst	11 (55%)	18 (82%)
Follicle, Cyst, Multiple		
Follicle, Depletion		
Interstitial Cell, Hypertrophy	3 (15%)	5 (23%)
Periovarian Tissue, Cyst		
Rete Ovarii, Cyst		
Oviduct	(20)	(22)
Infiltration Cellular, Polymorphonuclear Epithelium, Hyperplasia		
Uterus	(20)	(22)
Apoptosis	1 (5%)	6 (27%)
Atrophy		
Diestrus	9 (45%)	10 (45%)
Estrus	2 (10%)	6 (27%)
Hyperplasia, Stromal		
Infiltration Cellular, Polymorphonuclear		
Metaplasia, Squamous		4 (18%)
Metestrus	7 (35%)	4 (18%)
Proestrus	2 (10%)	2 (9%)
Cervix, Cyst		
Cervix, Cyst, Squamous		
Cervix, Dilatation		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Endometrial Glands, Hyperplasia		2 (9%)
Endometrium, Cyst	3 (15%)	
Endometrium, Hyperplasia	6 (30%)	9 (41%)
Endometrium, Hyperplasia, Cystic	1 (5%)	7 (32%)
Lumen, Dilatation	1 (5%)	
Vagina	(20)	(22)
Atrophy		
Cyst, Squamous		
Diestrus	9 (45%)	10 (45%)
Estrus	2 (10%)	6 (27%)
Infiltration Cellular, Polymorphonuclear		
Metestrus	7 (35%)	4 (18%)
Proestrus	2 (10%)	2 (9%)
Epithelium, Hyperplasia	2 (10%)	6 (27%)
Epithelium, Mucification	8 (40%)	10 (45%)

HEMATOPOIETIC SYSTEM

Bone Marrow	(20)	(22)
Myeloid Cell, Hyperplasia	1 (5%)	
Lymph Node	(0)	(0)
Lumbar, Infiltration Cellular, Plasma Cell		
Mediastinal, Hyperplasia, Lymphoid		
Mediastinal, Infiltration Cellular, Mast Cell		
Renal, Hemorrhage		
Renal, Pigmentation		
Renal, Sinus, Dilatation		
Lymph Node, Mandibular	(0)	(0)
Hyperplasia, Lymphoid		
Infiltration Cellular, Plasma Cell		
Lymph Node, Mesenteric	(1)	(0)
Degeneration, Cystic	1 (100%)	
Infiltration Cellular, Plasma Cell	1 (100%)	
Spleen	(20)	(22)
Hematopoietic Cell Proliferation	3 (15%)	2 (9%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 2500.StDose F

F1 25000StDose F

Pigmentation	20 (100%)	20 (91%)
Polyarteritis		
Thymus	(20)	(22)
Atrophy	18 (90%)	16 (73%)
Cyst		
Cyst Multilocular	1 (5%)	
Hemorrhage		
Hyperplasia, Lymphoid		
Epithelial Cell, Hyperplasia		

INTEGUMENTARY SYSTEM

Mammary Gland	(20)	(22)
Atypical Focus		
Galactocele		
Hyperplasia, Lobular	7 (35%)	12 (55%)
Duct, Dilatation	1 (5%)	1 (5%)
Skin	(0)	(0)
Edema		
Inflammation, Chronic Active		
Ulcer		
Epithelium, Hyperplasia		

MUSCULOSKELETAL SYSTEM

Bone	(0)	(0)
Rib, Fibrosis		
Bone, Femur	(20)	(22)
Skeletal Muscle	(0)	(2)

NERVOUS SYSTEM

Brain, Brain Stem	(20)	(22)
Compression		1 (5%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Brain, Cerebellum	(20)	(22)
Brain, Cerebrum	(20)	(22)
Cyst		1 (5%)
Hemorrhage		
Metaplasia, Osseous		1 (5%)
Meninges, Cyst		
Neuron, Degeneration		
Ventricle, Dilatation		1 (5%)
Nerve Trigeminal	(0)	(2)
Peripheral Nerve, Sciatic	(0)	(2)
Peripheral Nerve, Tibial	(0)	(2)
Spinal Cord, Cervical	(0)	(2)
Hemorrhage		1 (50%)
Polyarteritis		1 (50%)
Spinal Cord, Lumbar	(0)	(2)
Axon, Degeneration		1 (50%)
Spinal Cord, Thoracic	(0)	(2)

RESPIRATORY SYSTEM

Lung	(0)	(4)
Congestion		
Foreign Body		
Hemorrhage		
Infiltration Cellular, Histiocyte		1 (25%)
Inflammation, Chronic Active		
Mineralization		
Pigmentation		
Polyarteritis		
Pleura, Abscess		
Pleura, Fibrosis		
Pleura, Foreign Body		
Nose	(0)	(2)
Trachea	(0)	(2)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 2500.StDose F

F1 25000StDose F

SPECIAL SENSES SYSTEM

Eye	(0)	(0)
Cataract		
Hemorrhage		
Bilateral, Cataract		
Zymbal's Gland	(0)	(0)

URINARY SYSTEM

Kidney	(20)	(22)
Accumulation, Hyaline Droplet		
Casts Protein	1 (5%)	1 (5%)
Inflammation, Chronic Active		
Mineralization	13 (65%)	11 (50%)
Nephropathy	12 (60%)	13 (59%)
Pigmentation		
Polyarteritis		1 (5%)
Cortex, Cyst	7 (35%)	3 (14%)
Interstitial Cell, Hyperplasia		1 (5%)
Renal Tubule, Cyst	6 (30%)	5 (23%)
Renal Tubule, Dilatation		1 (5%)
Renal Tubule, Hypertrophy		

*** END OF REPORT ***

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

NTP Study Number: C10034
Lock Date: 08/16/2017
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: 09/29/2017

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 Veh. Ctrl M

F1 2.5 BPA M

F1 25.0 BPA M

F1 250.0BPA M

F1 2500.BPA M

F1 25000BPA M

Disposition Summary

Animals Initially In Study	50	48	48	50	50	46
Early Deaths						
Moribund Sacrifice	20	13	21	17	18	23
Natural Death	10	13	3	11	7	8
Survivors						
Moribund Sacrifice	4	3	6	4	6	4
Natural Death	1	3	1	4	3	
Terminal Sacrifice	15	16	17	14	16	11
Animals Examined Microscopically	50	48	48	50	50	46

ALIMENTARY SYSTEM

Esophagus	(35)	(32)	(31)	(36)	(34)	(35)
Dilatation						
Foreign Body						1 (3%)
Perforation		2 (6%)		1 (3%)		
Periesophageal Tissue, Foreign Body		2 (6%)		1 (3%)		
Periesophageal Tissue, Inflammation, Suppurative		2 (6%)		1 (3%)		1 (3%)
Periesophageal Tissue, Necrosis		2 (6%)		1 (3%)		1 (3%)
Intestine Large, Cecum	(0)	(0)	(0)	(0)	(0)	(0)
Dilatation						
Hyperplasia, Lymphoid						
Intestine Large, Colon	(29)	(22)	(31)	(30)	(27)	(30)
Dilatation						
Fibrosis						1 (3%)
Hyperplasia, Goblet Cell						1 (3%)
Inflammation, Suppurative						1 (3%)
Ulcer						1 (3%)
Epithelium, Hyperplasia						1 (3%)
Intestine Large, Rectum	(0)	(0)	(0)	(0)	(0)	(2)
Fibrosis						1 (50%)
Hyperplasia, Goblet Cell						1 (50%)
Inflammation, Suppurative						1 (50%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Intestine Small, Duodenum	(0)	(0)	(0)	(0)	(1)	(0)
Intestine Small, Ileum	(26)	(17)	(27)	(24)	(25)	(28)
Dilatation						
Inflammation, Suppurative						1 (4%)
Epithelium, Hyperplasia						1 (4%)
Intestine Small, Jejunum	(0)	(0)	(1)	(0)	(1)	(1)
Bacterium						
Dilatation			1 (100%)			
Diverticulum						
Fibrosis						
Foreign Body						
Hyperplasia, Lymphoid						
Inflammation, Suppurative						
Inflammation, Chronic Active						
Metaplasia, Osseous					1 (100%)	
Mineralization						
Necrosis						
Perforation						
Ulcer						
Liver	(50)	(47)	(48)	(50)	(50)	(45)
Angiectasis	1 (2%)	8 (17%)	4 (8%)	4 (8%)	3 (6%)	2 (4%)
Bacterium					1 (2%)	
Basophilic Focus	5 (10%)	5 (11%)	6 (13%)	8 (16%)	3 (6%)	4 (9%)
Cholangiofibrosis		1 (2%)	1 (2%)			
Clear Cell Focus	11 (22%)	7 (15%)	11 (23%)	14 (28%)	10 (20%)	8 (18%)
Congestion			1 (2%)			1 (2%)
Cyst	2 (4%)		1 (2%)	1 (2%)		
Deformity		2 (4%)		1 (2%)		
Degeneration, Cystic	21 (42%)	19 (40%)	19 (40%)	22 (44%)	18 (36%)	18 (40%)
Eosinophilic Focus		2 (4%)	1 (2%)			
Fatty Change	4 (8%)	8 (17%)	5 (10%)	5 (10%)	4 (8%)	2 (4%)
Fibrosis						
Hematopoietic Cell Proliferation			2 (4%)		2 (4%)	
Hemorrhage					1 (2%)	
Hepatodiaphragmatic Nodule	6 (12%)	2 (4%)	4 (8%)	3 (6%)	7 (14%)	5 (11%)
Infiltration Cellular, Mononuclear Cell	35 (70%)	29 (62%)	37 (77%)	36 (72%)	34 (68%)	28 (62%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Infiltration Cellular, Polymorphonuclear Inflammation, Chronic		1 (2%)				1 (2%)
Inflammation, Chronic Active	2 (4%)	1 (2%)		2 (4%)	1 (2%)	1 (2%)
Mixed Cell Focus	1 (2%)		1 (2%)		1 (2%)	1 (2%)
Pigmentation						1 (2%)
Polyarteritis						1 (2%)
Tension Lipidosis	3 (6%)	2 (4%)	3 (6%)	1 (2%)	2 (4%)	7 (16%)
Vacuolization Cytoplasmic	12 (24%)	8 (17%)	11 (23%)	15 (30%)	14 (28%)	14 (31%)
Bile Duct, Hyperplasia	16 (32%)	19 (40%)	17 (35%)	16 (32%)	16 (32%)	12 (27%)
Biliary Tract, Cyst	1 (2%)	1 (2%)		1 (2%)		
Biliary Tract, Cyst Multilocular						
Biliary Tract, Fibrosis	13 (26%)	19 (40%)	19 (40%)	15 (30%)	19 (38%)	10 (22%)
Capsule, Fibrosis			1 (2%)			
Capsule, Hemorrhage						
Hepatocyte, Degeneration					1 (2%)	
Hepatocyte, Necrosis	2 (4%)	3 (6%)	1 (2%)	1 (2%)	4 (8%)	1 (2%)
Hepatocyte, Regeneration						
Oval Cell, Hyperplasia	4 (8%)	1 (2%)		1 (2%)	3 (6%)	2 (4%)
Mesentery	(1)	(0)	(4)	(1)	(1)	(4)
Fat, Abscess						
Fat, Fibrosis			1 (25%)			
Fat, Foreign Body						
Fat, Hemorrhage						
Fat, Inflammation, Granulomatous			1 (25%)			
Fat, Inflammation, Chronic						
Fat, Necrosis	1 (100%)		4 (100%)	1 (100%)	1 (100%)	4 (100%)
Oral Mucosa	(1)	(0)	(1)	(0)	(1)	(0)
Pancreas	(50)	(46)	(48)	(49)	(48)	(44)
Basophilic Focus	2 (4%)	2 (4%)	2 (4%)	1 (2%)	4 (8%)	4 (9%)
Cyst Multilocular					1 (2%)	
Fibrosis						1 (2%)
Hemorrhage					1 (2%)	
Infiltration Cellular, Lymphocyte	36 (72%)	32 (70%)	43 (90%)	38 (78%)	38 (79%)	36 (82%)
Inflammation, Chronic Active	1 (2%)	2 (4%)		1 (2%)		2 (5%)
Lipomatosis	7 (14%)	7 (15%)	12 (25%)	11 (22%)	11 (23%)	9 (20%)
Mineralization						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Necrosis					1 (2%)	
Pigmentation	29 (58%)	19 (41%)	26 (54%)	26 (53%)	30 (63%)	26 (59%)
Polyarteritis		1 (2%)			2 (4%)	1 (2%)
Thrombosis					1 (2%)	
Vacuolization Cytoplasmic Acinar Cell, Hyperplasia						
Acinus, Degeneration	42 (84%)	36 (78%)	43 (90%)	43 (88%)	44 (92%)	37 (84%)
Artery, Fibrosis	1 (2%)					
Artery, Inflammation, Chronic Active	1 (2%)					
Artery, Mineralization	1 (2%)			1 (2%)		
Artery, Pigmentation	1 (2%)					
Duct, Dilatation		1 (2%)		1 (2%)		
Salivary Glands	(0)	(0)	(0)	(0)	(0)	(0)
Inflammation, Chronic Active						
Stomach, Forestomach	(36)	(31)	(33)	(36)	(32)	(34)
Cyst Epithelial Inclusion			1 (3%)	1 (3%)		1 (3%)
Edema						
Fibrosis		1 (3%)				
Hyperplasia, Basal Cell	1 (3%)					
Inflammation, Chronic Active	1 (3%)	3 (10%)				
Mineralization	1 (3%)					
Necrosis						
Perforation						
Ulcer	1 (3%)	2 (6%)				
Epithelium, Hyperplasia	1 (3%)	3 (10%)	3 (9%)		2 (6%)	1 (3%)
Stomach, Glandular	(34)	(30)	(33)	(32)	(33)	(33)
Cyst						
Cyst Epithelial Inclusion			1 (3%)			
Edema	1 (3%)					
Hemorrhage						
Infiltration Cellular, Polymorphonuclear						
Inflammation, Chronic Active		1 (3%)				
Mineralization	1 (3%)	1 (3%)	3 (9%)	3 (9%)	1 (3%)	
Necrosis	1 (3%)	1 (3%)				
Ulcer						
Epithelium, Hyperplasia	2 (6%)	1 (3%)	1 (3%)	1 (3%)	1 (3%)	

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Tongue	(0)	(1)	(0)	(0)	(0)	(1)
Hemorrhage						
Epithelium, Hyperplasia		1 (100%)				

CARDIOVASCULAR SYSTEM

Blood Vessel	(50)	(48)	(48)	(50)	(50)	(46)
Dilatation				1 (2%)		
Mineralization	1 (2%)	1 (2%)	2 (4%)	3 (6%)	1 (2%)	1 (2%)
Polyarteritis		1 (2%)				
Thrombosis		1 (2%)				
Intima, Proliferation						1 (2%)
Media, Proliferation			1 (2%)			
Heart	(50)	(48)	(48)	(50)	(50)	(46)
Cardiomyopathy	44 (88%)	44 (92%)	43 (90%)	45 (90%)	44 (88%)	41 (89%)
Fibrosis						1 (2%)
Inflammation, Chronic						
Inflammation, Chronic Active						1 (2%)
Metaplasia, Osseous		3 (6%)				1 (2%)
Mineralization	1 (2%)	1 (2%)	2 (4%)	3 (6%)	1 (2%)	
Polyarteritis						
Thrombosis		1 (2%)	1 (2%)			1 (2%)
Atrium, Dilatation	1 (2%)					
Endocardium, Hyperplasia						1 (2%)
Myocardium, Necrosis					1 (2%)	1 (2%)
Pericardium, Fibrosis						
Pericardium, Necrosis						
Ventricle, Dilatation	1 (2%)			1 (2%)		

ENDOCRINE SYSTEM

Adrenal Cortex	(50)	(48)	(48)	(50)	(48)	(45)
Accessory Adrenal Cortical Nodule			2 (4%)		1 (2%)	
Angiectasis	2 (4%)		4 (8%)	1 (2%)	1 (2%)	2 (4%)
Atrophy	1 (2%)					

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Congestion						
Degeneration, Cystic	4 (8%)	6 (13%)	2 (4%)	2 (4%)	2 (4%)	3 (7%)
Hyperplasia	6 (12%)	9 (19%)	8 (17%)	7 (14%)	6 (13%)	7 (16%)
Hypertrophy	2 (4%)		1 (2%)	1 (2%)	2 (4%)	4 (9%)
Infiltration Cellular, Lymphocyte					1 (2%)	
Metaplasia, Osseous	1 (2%)			2 (4%)		
Necrosis	1 (2%)					
Polyarteritis						
Vacuolization Cytoplasmic	18 (36%)	12 (25%)	22 (46%)	14 (28%)	21 (44%)	15 (33%)
Adrenal Medulla	(50)	(48)	(47)	(50)	(50)	(45)
Angiectasis	1 (2%)					
Cyst						
Degeneration, Cystic						
Hemorrhage						
Hyperplasia	5 (10%)	3 (6%)	7 (15%)	6 (12%)	8 (16%)	5 (11%)
Necrosis						
Islets, Pancreatic	(50)	(46)	(48)	(48)	(49)	(45)
Hemorrhage						
Hyperplasia	2 (4%)	2 (4%)		1 (2%)	1 (2%)	
Parathyroid Gland	(49)	(46)	(47)	(50)	(50)	(46)
Hyperplasia	11 (22%)	11 (24%)	23 (49%)	18 (36%)	18 (36%)	12 (26%)
Inflammation, Chronic Active						
Necrosis						
Pituitary Gland	(48)	(48)	(48)	(50)	(50)	(45)
Angiectasis	6 (13%)	11 (23%)	10 (21%)	8 (16%)	9 (18%)	6 (13%)
Atrophy	1 (2%)					
Fibrosis						
Hemorrhage	1 (2%)		1 (2%)	2 (4%)		
Inflammation, Chronic						
Mineralization						
Necrosis						
Pigmentation	1 (2%)					
Thrombosis						
Pars Distalis, Cyst	8 (17%)	4 (8%)	5 (10%)	6 (12%)	5 (10%)	2 (4%)
Pars Distalis, Cyst Multilocular	2 (4%)			3 (6%)	4 (8%)	5 (11%)
Pars Distalis, Degeneration						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Pars Distalis, Hyperplasia	11 (23%)	9 (19%)	19 (40%)	15 (30%)	17 (34%)	19 (42%)
Pars Distalis, Hypertrophy	4 (8%)	2 (4%)	3 (6%)	3 (6%)	3 (6%)	1 (2%)
Pars Distalis, Vacuolization Cytoplasmic		1 (2%)				1 (2%)
Pars Intermedia, Cyst	1 (2%)					2 (4%)
Pars Intermedia, Hyperplasia						
Rathke's Cleft, Cyst						1 (2%)
Thyroid Gland	(46)	(40)	(47)	(44)	(44)	(44)
Inflammation, Chronic Active				1 (2%)		
Polyarteritis				1 (2%)		
Ultimobranchial Cyst	7 (15%)	4 (10%)	6 (13%)	5 (11%)	5 (11%)	3 (7%)
C-cell, Hyperplasia	9 (20%)	13 (33%)	15 (32%)	15 (34%)	20 (45%)	11 (25%)
Follicle, Cyst						1 (2%)
Follicular Cell, Hyperplasia	3 (7%)	2 (5%)	9 (19%)	6 (14%)	3 (7%)	3 (7%)

GENERAL BODY SYSTEM

Peritoneum	(0)	(0)	(0)	(0)	(0)	(1)
Tissue NOS	(2)	(0)	(0)	(0)	(1)	(1)
Cyst						1 (100%)
Hemorrhage	1 (50%)					
Mineralization						1 (100%)
Thrombosis						

GENITAL SYSTEM

Bulbourethral Gland	(1)	(0)	(0)	(0)	(0)	(0)
Dilatation						
Coagulating Gland	(47)	(46)	(47)	(49)	(46)	(45)
Atrophy	1 (2%)	2 (4%)			1 (2%)	1 (2%)
Cyst, Mucinous	1 (2%)	1 (2%)				
Degeneration, Cystic	1 (2%)					
Edema						
Fibrosis	1 (2%)					1 (2%)
Infiltration Cellular, Lymphocyte						
Inflammation, Suppurative	2 (4%)				1 (2%)	1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Inflammation, Chronic						
Inflammation, Chronic Active	1 (2%)					
Necrosis						
Epithelium, Hyperplasia				1 (2%)		
Lumen, Dilatation	2 (4%)		1 (2%)			
Ductus Deferens	(0)	(0)	(1)	(0)	(0)	(0)
Granuloma Sperm			1 (100%)			
Epididymis	(49)	(48)	(48)	(50)	(50)	(46)
Atrophy						
Exfoliated Germ Cell	10 (20%)	8 (17%)	10 (21%)	12 (24%)	13 (26%)	6 (13%)
Fibrosis						
Granuloma Sperm				1 (2%)		
Hypoplasia			1 (2%)			
Hypospermia	11 (22%)	11 (23%)	9 (19%)	14 (28%)	11 (22%)	9 (20%)
Infiltration Cellular, Lymphocyte	10 (20%)	12 (25%)	13 (27%)	15 (30%)	14 (28%)	15 (33%)
Inflammation, Suppurative						
Inflammation, Chronic						
Inflammation, Chronic Active				1 (2%)		
Polyarteritis		1 (2%)	1 (2%)	1 (2%)	4 (8%)	1 (2%)
Spermatocoele			1 (2%)			
Epithelium, Degeneration	1 (2%)					
Epithelium, Hyperplasia						
Mesothelium, Hyperplasia						
Fat Pad, Epididymal	(2)	(2)	(0)	(1)	(3)	(1)
Inflammation, Chronic Active						
Mineralization						
Necrosis	2 (100%)	2 (100%)			3 (100%)	1 (100%)
Preputial Gland	(15)	(15)	(15)	(13)	(16)	(9)
Abscess	2 (13%)					
Atrophy	3 (20%)	1 (7%)	3 (20%)	1 (8%)	1 (6%)	1 (11%)
Cyst						
Fibrosis		1 (7%)	1 (7%)			
Hyperkeratosis	3 (20%)	4 (27%)	4 (27%)	1 (8%)	2 (13%)	2 (22%)
Infiltration Cellular, Lymphocyte				1 (8%)		
Inflammation, Suppurative	7 (47%)	12 (80%)	10 (67%)	11 (85%)	8 (50%)	3 (33%)
Inflammation, Granulomatous						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Inflammation, Chronic Active Necrosis						
Duct, Dilatation	10 (67%)	13 (87%)	10 (67%)	12 (92%)	13 (81%)	8 (89%)
Epithelium, Hyperplasia		1 (7%)				
Prostate, Dorsal/lateral Lobe	(50)	(48)	(48)	(50)	(50)	(46)
Atrophy	2 (4%)				2 (4%)	1 (2%)
Cyst						
Cyst, Mucinous	2 (4%)	2 (4%)	2 (4%)	3 (6%)	1 (2%)	1 (2%)
Edema						
Fibrosis	9 (18%)	5 (10%)	12 (25%)	9 (18%)	10 (20%)	6 (13%)
Hemorrhage						
Infiltration Cellular, Lymphocyte	33 (66%)	26 (54%)	27 (56%)	27 (54%)	27 (54%)	20 (43%)
Inflammation, Suppurative	41 (82%)	46 (96%)	47 (98%)	45 (90%)	43 (86%)	41 (89%)
Inflammation, Chronic Active			1 (2%)	1 (2%)		
Mineralization			1 (2%)			
Polyarteritis						
Epithelium, Hyperplasia		1 (2%)	1 (2%)			
Muscularis, Necrosis				1 (2%)		
Muscularis, Regeneration				1 (2%)		
Prostate, Ventral Lobe	(50)	(48)	(48)	(49)	(49)	(46)
Atrophy	4 (8%)	2 (4%)	2 (4%)		5 (10%)	5 (11%)
Edema						
Fibrosis	15 (30%)	4 (8%)	6 (13%)	8 (16%)	4 (8%)	11 (24%)
Hemorrhage				1 (2%)		
Infiltration Cellular, Lymphocyte	25 (50%)	14 (29%)	15 (31%)	15 (31%)	20 (41%)	15 (33%)
Inflammation, Suppurative	16 (32%)	5 (10%)	5 (10%)	6 (12%)	5 (10%)	11 (24%)
Inflammation, Chronic Active				1 (2%)		
Mineralization	4 (8%)	1 (2%)		1 (2%)	1 (2%)	
Necrosis				1 (2%)		
Polyarteritis	1 (2%)	1 (2%)				
Epithelium, Hyperplasia	10 (20%)	12 (25%)	10 (21%)	18 (37%)	12 (24%)	8 (17%)
Seminal Vesicle	(44)	(42)	(45)	(41)	(44)	(43)
Atrophy	2 (5%)	3 (7%)	3 (7%)	1 (2%)	3 (7%)	2 (5%)
Concretion						
Edema				1 (2%)		
Fibrosis	1 (2%)					1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Infiltration Cellular, Lymphocyte Inflammation, Suppurative	2 (5%)				1 (2%)	
Inflammation, Chronic Inflammation, Chronic Active		1 (2%)	1 (2%)	2 (5%)	1 (2%)	2 (5%)
Necrosis				1 (2%)	1 (2%)	
Polyarteritis					1 (2%)	
Epithelium, Hyperplasia	7 (16%)	6 (14%)	5 (11%)	3 (7%)	4 (9%)	3 (7%)
Lumen, Dilatation	2 (5%)	2 (5%)	4 (9%)	2 (5%)		1 (2%)
Testes	(49)	(48)	(48)	(50)	(50)	(46)
Abscess						
Aspermia						
Edema			1 (2%)			
Fibrosis						
Granuloma						
Polyarteritis	12 (24%)	11 (23%)	16 (33%)	20 (40%)	16 (32%)	10 (22%)
Seminiferous Tubule, Degeneration	40 (82%)	30 (63%)	33 (69%)	35 (70%)	38 (76%)	33 (72%)
Seminiferous Tubule, Dilatation						
HEMATOPOIETIC SYSTEM						
Bone Marrow	(48)	(48)	(48)	(49)	(50)	(45)
Hypocellularity	5 (10%)	7 (15%)	5 (10%)			4 (9%)
Necrosis	1 (2%)					
Myeloid Cell, Hyperplasia	6 (13%)	4 (8%)	2 (4%)	3 (6%)	7 (14%)	2 (4%)
Lymph Node	(15)	(9)	(13)	(15)	(16)	(11)
Axillary, Degeneration, Cystic						
Axillary, Hyperplasia, Lymphoid	1 (7%)					2 (18%)
Axillary, Infiltration Cellular, Plasma Cell	1 (7%)	1 (11%)				2 (18%)
Brachial, Degeneration, Cystic						
Brachial, Hyperplasia, Lymphoid						
Brachial, Infiltration Cellular, Plasma Cell						
Cervical, Hyperplasia, Lymphoid			1 (8%)			
Cervical, Infiltration Cellular, Plasma Cell			1 (8%)			
Iliac, Degeneration, Cystic					1 (6%)	
Iliac, Hyperplasia, Lymphoid						

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Iliac, Infiltration Cellular, Plasma Cell						
Inguinal, Hyperplasia, Lymphoid				1 (7%)		
Inguinal, Infiltration Cellular, Plasma Cell				1 (7%)		
Lumbar, Degeneration, Cystic	2 (13%)	2 (22%)	3 (23%)	4 (27%)	7 (44%)	2 (18%)
Lumbar, Hemorrhage						
Lumbar, Hyperplasia, Lymphoid	3 (20%)	4 (44%)	1 (8%)	4 (27%)	2 (13%)	2 (18%)
Lumbar, Infiltration Cellular, Plasma Cell	5 (33%)	4 (44%)	4 (31%)	6 (40%)	4 (25%)	4 (36%)
Lumbar, Infiltration Cellular, Polymorphonuclear						
Lumbar, Inflammation, Suppurative						1 (9%)
Lumbar, Necrosis						1 (9%)
Mediastinal, Degeneration, Cystic						
Mediastinal, Hemorrhage		1 (11%)			1 (6%)	
Mediastinal, Hyperplasia, Lymphoid		1 (11%)			1 (6%)	
Mediastinal, Infiltration Cellular, Histiocyte						
Mediastinal, Infiltration Cellular, Mast Cell						
Mediastinal, Infiltration Cellular, Plasma Cell						
Mediastinal, Infiltration Cellular, Polymorphonuclear						
Mediastinal, Inflammation, Suppurative						
Pancreatic, Degeneration, Cystic						
Pancreatic, Hyperplasia, Lymphoid			1 (8%)			
Pancreatic, Infiltration Cellular, Histiocyte			1 (8%)			
Pancreatic, Infiltration Cellular, Plasma Cell						
Pancreatic, Pigmentation						
Popliteal, Hyperplasia, Lymphoid		1 (11%)		1 (7%)		
Popliteal, Infiltration Cellular, Plasma Cell		1 (11%)		1 (7%)		
Renal, Degeneration, Cystic	7 (47%)	6 (67%)	6 (46%)	6 (40%)	5 (31%)	6 (55%)
Renal, Hemorrhage	1 (7%)	2 (22%)	1 (8%)	3 (20%)	2 (13%)	1 (9%)
Renal, Hyperplasia, Lymphoid	2 (13%)		1 (8%)	2 (13%)		1 (9%)
Renal, Infiltration Cellular, Plasma Cell	3 (20%)	3 (33%)	2 (15%)	2 (13%)	2 (13%)	2 (18%)
Renal, Pigmentation	1 (7%)				1 (6%)	
Lymph Node, Mandibular Congestion	(7)	(10)	(9)	(8)	(9)	(4)
Degeneration, Cystic	1 (14%)	3 (30%)	3 (33%)	2 (25%)	4 (44%)	1 (25%)
Hyperplasia, Lymphoid	4 (57%)	7 (70%)	5 (56%)	4 (50%)	5 (56%)	2 (50%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Infiltration Cellular, Lymphocyte				1 (13%)		
Infiltration Cellular, Plasma Cell	3 (43%)	8 (80%)	7 (78%)	4 (50%)	7 (78%)	2 (50%)
Lymph Node, Mesenteric	(0)	(1)	(1)	(1)	(2)	(3)
Degeneration, Cystic			1 (100%)			
Fibrosis						
Hemorrhage			1 (100%)			
Hyperplasia, Lymphoid					1 (50%)	1 (33%)
Infiltration Cellular, Polymorphonuclear						1 (33%)
Pigmentation					1 (50%)	
Spleen	(49)	(47)	(48)	(47)	(49)	(45)
Congestion						
Depletion Lymphoid						1 (2%)
Fibrosis						
Hematopoietic Cell Proliferation	13 (27%)	10 (21%)	13 (27%)	11 (23%)	10 (20%)	13 (29%)
Hemorrhage						
Hyperplasia, Lymphoid	1 (2%)	1 (2%)		2 (4%)	3 (6%)	1 (2%)
Mineralization	1 (2%)					
Necrosis	1 (2%)			1 (2%)	1 (2%)	1 (2%)
Pigmentation	28 (57%)	28 (60%)	28 (58%)	23 (49%)	22 (45%)	24 (53%)
Polyarteritis		1 (2%)			2 (4%)	1 (2%)
Vacuolization Cytoplasmic						
Capsule, Fibrosis						
Thymus	(50)	(46)	(46)	(49)	(49)	(43)
Atrophy	47 (94%)	43 (93%)	44 (96%)	47 (96%)	47 (96%)	42 (98%)
Cyst						
Fibrosis						
Hemorrhage	1 (2%)	1 (2%)	1 (2%)			
Polyarteritis						
Epithelial Cell, Hyperplasia						
INTEGUMENTARY SYSTEM						
Mammary Gland	(50)	(48)	(48)	(50)	(50)	(45)
Atypical Focus		1 (2%)			1 (2%)	
Fibrosis				1 (2%)		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Galactoceles	1 (2%)	1 (2%)	1 (2%)	2 (4%)	1 (2%)	1 (2%)
Hyperplasia, Lobular Inflammation, Granulomatous Mineralization Polyarteritis	1 (2%)	1 (2%)	2 (4%)		2 (4%)	
Alveolus, Degeneration	28 (56%)	22 (46%)	25 (52%)	22 (44%)	25 (50%)	23 (51%)
Alveolus, Dilatation	8 (16%)	17 (35%)	11 (23%)	10 (20%)	11 (22%)	9 (20%)
Duct, Dilatation	14 (28%)	18 (38%)	15 (31%)	11 (22%)	15 (30%)	11 (24%)
Skin	(12)	(16)	(14)	(14)	(19)	(17)
Abscess	1 (8%)	1 (6%)				
Angiectasis				1 (7%)		
Cyst, Squamous		1 (6%)				
Cyst Epithelial Inclusion	4 (33%)	3 (19%)	3 (21%)	6 (43%)	9 (47%)	3 (18%)
Edema						1 (6%)
Fibrosis		1 (6%)		1 (7%)		
Foreign Body						
Hemorrhage						
Hyperkeratosis						
Inflammation, Suppurative		2 (13%)			2 (11%)	
Inflammation, Granulomatous	2 (17%)			1 (7%)		
Inflammation, Chronic Active				1 (7%)		1 (6%)
Necrosis				1 (7%)		1 (6%)
Ulcer		1 (6%)		1 (7%)	1 (5%)	1 (6%)
Epithelium, Hyperplasia		1 (6%)		1 (7%)		1 (6%)
Epithelium, Foot, Hyperplasia	6 (50%)	5 (31%)	5 (36%)	4 (29%)	6 (32%)	8 (47%)
Foot, Edema	5 (42%)	2 (13%)	1 (7%)	3 (21%)	5 (26%)	5 (29%)
Foot, Fibrosis	6 (50%)	5 (31%)	4 (29%)	4 (29%)	7 (37%)	9 (53%)
Foot, Hemorrhage						1 (6%)
Foot, Inflammation, Chronic Active	6 (50%)	5 (31%)	5 (36%)	4 (29%)	7 (37%)	9 (53%)
Foot, Necrosis	6 (50%)	4 (25%)	4 (29%)	4 (29%)	7 (37%)	8 (47%)
Foot, Ulcer	6 (50%)	4 (25%)	4 (29%)	4 (29%)	7 (37%)	8 (47%)
Sebaceous Gland, Hyperplasia						

MUSCULOSKELETAL SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Bone	(1)	(0)	(1)	(2)	(2)	(1)
Humerus, Abscess						
Humerus, Osteopetrosis						
Joint, Fibrosis			1 (100%)			
Joint, Hyperostosis			1 (100%)			
Joint, Inflammation, Chronic Active			1 (100%)			
Mandible, Osteopetrosis						
Metatarsal, Hyperostosis						
Rib, Hyperostosis						
Tarsal, Hyperostosis						
Tibia, Hyperostosis					1 (50%)	
Vertebra, Fibrous Osteodystrophy						
Bone, Femur	(50)	(48)	(48)	(50)	(50)	(46)
Fibrous Osteodystrophy	1 (2%)	1 (2%)	1 (2%)	2 (4%)	1 (2%)	
Osteopetrosis					1 (2%)	
Skeletal Muscle	(2)	(0)	(3)	(1)	(1)	(1)
Degeneration				1 (100%)		
Fibrosis						
Hemorrhage						
Inflammation, Chronic Active						
Necrosis						

NERVOUS SYSTEM

Brain, Brain Stem	(49)	(48)	(48)	(49)	(49)	(46)
Compression	12 (24%)	14 (29%)	12 (25%)	10 (20%)	9 (18%)	8 (17%)
Cyst				1 (2%)		
Gliosis		1 (2%)				
Hemorrhage				1 (2%)	2 (4%)	1 (2%)
Necrosis		1 (2%)			1 (2%)	1 (2%)
Pigmentation				1 (2%)		
Thrombosis				1 (2%)		
Vacuolization Cytoplasmic						
Brain, Cerebellum	(50)	(48)	(48)	(49)	(49)	(46)
Compression		1 (2%)				

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Gliosis			1 (2%)			
Hemorrhage	1 (2%)		1 (2%)		1 (2%)	1 (2%)
Necrosis			1 (2%)		1 (2%)	
Polyarteritis			1 (2%)			
Brain, Cerebrum	(50)	(48)	(48)	(49)	(49)	(46)
Compression				1 (2%)	1 (2%)	
Gliosis	1 (2%)	2 (4%)	1 (2%)	1 (2%)		
Hemorrhage	2 (4%)			1 (2%)	1 (2%)	4 (9%)
Mineralization	1 (2%)					
Necrosis	1 (2%)	2 (4%)	1 (2%)	1 (2%)	1 (2%)	1 (2%)
Pigmentation						
Polyarteritis			1 (2%)			
Thrombosis						
Ventricle, Dilatation	6 (12%)	10 (21%)	8 (17%)	5 (10%)	6 (12%)	4 (9%)
Nerve Trigeminal	(11)	(6)	(5)	(9)	(14)	(8)
Axon, Degeneration	8 (73%)	4 (67%)	2 (40%)	6 (67%)	9 (64%)	5 (63%)
Peripheral Nerve, Sciatic	(11)	(6)	(5)	(9)	(14)	(8)
Axon, Degeneration	1 (9%)	1 (17%)				1 (13%)
Peripheral Nerve, Tibial	(11)	(6)	(5)	(9)	(14)	(8)
Axon, Degeneration	1 (9%)					
Spinal Cord, Cervical	(11)	(6)	(5)	(8)	(14)	(8)
Hemorrhage					1 (7%)	
Axon, Degeneration				3 (38%)		
Spinal Cord, Lumbar	(11)	(6)	(5)	(8)	(14)	(8)
Axon, Degeneration	9 (82%)	5 (83%)	5 (100%)	7 (88%)	13 (93%)	5 (63%)
Spinal Cord, Thoracic	(11)	(6)	(5)	(8)	(14)	(8)
Hemorrhage						
Axon, Degeneration				2 (25%)		

RESPIRATORY SYSTEM

Lung	(38)	(39)	(34)	(38)	(35)	(36)
Abscess						
Congestion	3 (8%)	2 (5%)		3 (8%)	1 (3%)	
Fibrosis						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Foreign Body	4 (11%)	5 (13%)	2 (6%)	1 (3%)	2 (6%)	2 (6%)
Hemorrhage						2 (6%)
Infiltration Cellular, Histiocyte	9 (24%)	10 (26%)	14 (41%)	13 (34%)	4 (11%)	17 (47%)
Infiltration Cellular, Lymphocyte						
Inflammation, Suppurative					1 (3%)	1 (3%)
Inflammation, Granulomatous	3 (8%)	4 (10%)	3 (9%)	2 (5%)	1 (3%)	3 (8%)
Inflammation, Chronic	1 (3%)					
Inflammation, Chronic Active	2 (5%)	1 (3%)		1 (3%)		1 (3%)
Metaplasia, Osseous	1 (3%)					
Mineralization						
Necrosis	1 (3%)					
Thrombosis						
Alveolar Epithelium, Hyperplasia			2 (6%)	2 (5%)	1 (3%)	1 (3%)
Bronchiole, Epithelium, Hyperplasia		1 (3%)				
Goblet Cell, Metaplasia		1 (3%)				
Pleura, Fibrosis						
Pleura, Foreign Body		1 (3%)				
Pleura, Inflammation, Suppurative		1 (3%)			1 (3%)	
Pleura, Necrosis		1 (3%)				
Subpleura, Cyst						
Nose	(33)	(32)	(31)	(34)	(32)	(35)
Autolysis	1 (3%)	4 (13%)		1 (3%)	1 (3%)	
Cyst Epithelial Inclusion						
Exudate						
Fibrosis						1 (3%)
Fibrous Osteodystrophy	1 (3%)	1 (3%)	1 (3%)	1 (3%)	1 (3%)	
Foreign Body	2 (6%)	4 (13%)		4 (12%)	2 (6%)	3 (9%)
Hemorrhage						
Inflammation, Suppurative	2 (6%)	4 (13%)		5 (15%)	3 (9%)	4 (11%)
Inflammation, Chronic Active	1 (3%)	1 (3%)		1 (3%)		1 (3%)
Osteopetrosis						
Epithelium, Upper Molar, Hyperplasia						
Olfactory Epithelium, Accumulation, Hyaline Droplet	7 (21%)	13 (41%)	9 (29%)	13 (38%)	5 (16%)	5 (14%)
Olfactory Epithelium, Hyperplasia		1 (3%)				
Posterior To Upper Incisor, Malformation						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Respiratory Epithelium, Accumulation, Hyaline Droplet	1 (3%)	5 (16%)	3 (10%)	4 (12%)		
Respiratory Epithelium, Hyperplasia	1 (3%)			1 (3%)		
Respiratory Epithelium, Hyperplasia, Goblet Cell	4 (12%)	2 (6%)	2 (6%)	6 (18%)	2 (6%)	2 (6%)
Respiratory Epithelium, Ulcer						
Transitional Epithelium, Accumulation, Hyaline Droplet	1 (3%)	1 (3%)				
Upper Molar, Fibrosis	1 (3%)					
Upper Molar, Foreign Body	1 (3%)					
Upper Molar, Inflammation, Suppurative						
Upper Molar, Keratin Cyst						
Upper Molar, Necrosis						
Trachea	(31)	(23)	(30)	(27)	(32)	(33)
Inflammation, Chronic Active						
Epithelium, Hyperplasia						
Peritracheal Tissue, Hemorrhage						
Peritracheal Tissue, Inflammation, Chronic Active						

SPECIAL SENSES SYSTEM

Ear	(0)	(0)	(0)	(0)	(0)	(0)
Eye	(4)	(1)	(0)	(1)	(1)	(1)
Cataract	3 (75%)	1 (100%)		1 (100%)	1 (100%)	1 (100%)
Fibrosis					1 (100%)	
Inflammation, Chronic Active						
Mineralization						1 (100%)
Retinal Detachment		1 (100%)				1 (100%)
Rupture						
Anterior Chamber, Edema						
Cornea, Bacterium						
Cornea, Edema						
Cornea, Inflammation, Suppurative						
Cornea, Inflammation, Chronic Active					1 (100%)	
Cornea, Mineralization						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Cornea, Necrosis						
Cornea, Ulcer					1 (100%)	
Retina, Autolysis	1 (25%)					
Retina, Degeneration	3 (75%)			1 (100%)		1 (100%)
Lacrimal Gland	(0)	(0)	(0)	(0)	(0)	(0)
Zymbal's Gland	(2)	(0)	(3)	(0)	(1)	(1)
Cyst, Squamous						
Fibrosis					1 (100%)	
Inflammation, Suppurative					1 (100%)	1 (100%)
Duct, Dilatation	1 (50%)		1 (33%)		1 (100%)	1 (100%)
URINARY SYSTEM						
Kidney	(50)	(48)	(48)	(50)	(50)	(45)
Accumulation, Hyaline Droplet	3 (6%)		1 (2%)	2 (4%)	2 (4%)	3 (7%)
Casts Protein	1 (2%)		1 (2%)	1 (2%)		1 (2%)
Fibrosis						
Hemorrhage						
Infarct			1 (2%)			
Infiltration Cellular, Polymorphonuclear	6 (12%)	6 (13%)	5 (10%)	8 (16%)	6 (12%)	3 (7%)
Inflammation, Chronic Active						1 (2%)
Mineralization	1 (2%)	3 (6%)	3 (6%)	5 (10%)	1 (2%)	1 (2%)
Necrosis						
Nephropathy	44 (88%)	44 (92%)	43 (90%)	45 (90%)	47 (94%)	39 (87%)
Pigmentation						
Polyarteritis			1 (2%)	1 (2%)	1 (2%)	
Polycystic Kidney					1 (2%)	1 (2%)
Thrombosis			1 (2%)			
Vacuolization Cytoplasmic						1 (2%)
Artery, Intima, Proliferation				1 (2%)		
Cortex, Cyst	20 (40%)	15 (31%)	13 (27%)	10 (20%)	15 (30%)	11 (24%)
Pelvis, Dilatation	3 (6%)		1 (2%)	1 (2%)		1 (2%)
Pelvis, Infiltration Cellular, Lymphocyte						
Pelvis, Inflammation, Chronic Active						1 (2%)
Renal Tubule, Cyst	11 (22%)	13 (27%)	15 (31%)	21 (42%)	20 (40%)	11 (24%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 Veh. Ctrl M	F1 2.5 BPA M	F1 25.0 BPA M	F1 250.0BPA M	F1 2500.BPA M	F1 25000BPA M
Renal Tubule, Dilatation						
Renal Tubule, Hyperplasia, Atypical Transitional Epithelium, Hyperplasia	3 (6%)	4 (8%)	12 (25%)	7 (14%)	5 (10%)	4 (9%)
Urinary Bladder	(4)	(1)	(3)	(5)	(4)	(3)
Calculus Micro Observation Only		1 (100%)				
Fibrosis				1 (20%)		
Hemorrhage				1 (20%)		
Inflammation, Chronic Active				1 (20%)		
Necrosis				1 (20%)		
Lumen, Dilatation	4 (100%)	1 (100%)	3 (100%)	4 (80%)	4 (100%)	2 (67%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
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Disposition Summary

Animals Initially In Study	26	26	50	48	48	50
Early Deaths						
Moribund Sacrifice	12	8	16	17	19	25
Natural Death	3	3	10	9	4	5
Survivors						
Moribund Sacrifice	2	2	4	3	5	4
Natural Death		1	3	3	4	3
Terminal Sacrifice	9	12	17	16	16	13
Animals Examined Microscopically	26	26	50	48	48	50

ALIMENTARY SYSTEM

Esophagus	(17)	(14)	(32)	(32)	(32)	(37)
Dilatation				1 (3%)		
Foreign Body						
Perforation						
Periesophageal Tissue, Foreign Body						
Periesophageal Tissue, Inflammation, Suppurative						
Periesophageal Tissue, Necrosis						
Intestine Large, Cecum	(0)	(0)	(1)	(1)	(1)	(0)
Dilatation			1 (100%)			
Hyperplasia, Lymphoid				1 (100%)		
Intestine Large, Colon	(15)	(11)	(21)	(26)	(24)	(33)
Dilatation			1 (5%)			
Fibrosis						1 (3%)
Hyperplasia, Goblet Cell Inflammation, Suppurative Ulcer						
Epithelium, Hyperplasia						1 (3%)
Intestine Large, Rectum	(0)	(0)	(0)	(0)	(0)	(0)
Fibrosis						
Hyperplasia, Goblet Cell Inflammation, Suppurative						

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

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Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Intestine Small, Duodenum	(0)	(0)	(0)	(1)	(0)	(0)
Intestine Small, Ileum	(14)	(10)	(20)	(22)	(24)	(31)
Dilatation			1 (5%)			
Inflammation, Suppurative Epithelium, Hyperplasia						
Intestine Small, Jejunum	(1)	(0)	(1)	(3)	(1)	(1)
Bacterium						
Dilatation						
Diverticulum					1 (100%)	
Fibrosis						
Foreign Body						
Hyperplasia, Lymphoid	1 (100%)				1 (100%)	
Inflammation, Suppurative						
Inflammation, Chronic Active						
Metaplasia, Osseous					1 (100%)	
Mineralization						
Necrosis						
Perforation						
Ulcer						
Liver	(26)	(25)	(50)	(48)	(48)	(50)
Angiectasis	2 (8%)	2 (8%)	3 (6%)	4 (8%)	8 (17%)	5 (10%)
Bacterium						
Basophilic Focus	3 (12%)		9 (18%)	4 (8%)	5 (10%)	9 (18%)
Cholangiofibrosis						
Clear Cell Focus	7 (27%)	9 (36%)	7 (14%)	9 (19%)	11 (23%)	10 (20%)
Congestion				1 (2%)		1 (2%)
Cyst						
Deformity						
Degeneration, Cystic	10 (38%)	10 (40%)	28 (56%)	24 (50%)	25 (52%)	20 (40%)
Eosinophilic Focus				1 (2%)	1 (2%)	
Fatty Change		1 (4%)	5 (10%)	2 (4%)	7 (15%)	6 (12%)
Fibrosis				1 (2%)		
Hematopoietic Cell Proliferation	1 (4%)		1 (2%)	2 (4%)		2 (4%)
Hemorrhage			1 (2%)			2 (4%)
Hepatodiaphragmatic Nodule	3 (12%)	1 (4%)	3 (6%)	3 (6%)	1 (2%)	5 (10%)
Infiltration Cellular, Mononuclear Cell	22 (85%)	20 (80%)	34 (68%)	40 (83%)	37 (77%)	33 (66%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Infiltration Cellular, Polymorphonuclear Inflammation, Chronic			1 (2%)			
Inflammation, Chronic Active				1 (2%)	1 (2%)	1 (2%)
Mixed Cell Focus	1 (4%)	1 (4%)	2 (4%)		2 (4%)	1 (2%)
Pigmentation			1 (2%)			1 (2%)
Polyarteritis				1 (2%)		
Tension Lipidosis	1 (4%)	2 (8%)	2 (4%)	2 (4%)	1 (2%)	3 (6%)
Vacuolization Cytoplasmic	11 (42%)	12 (48%)	14 (28%)	9 (19%)	17 (35%)	12 (24%)
Bile Duct, Hyperplasia	10 (38%)	8 (32%)	19 (38%)	20 (42%)	19 (40%)	12 (24%)
Biliary Tract, Cyst			2 (4%)		1 (2%)	
Biliary Tract, Cyst Multilocular		1 (4%)				1 (2%)
Biliary Tract, Fibrosis	7 (27%)	8 (32%)	24 (48%)	19 (40%)	20 (42%)	12 (24%)
Capsule, Fibrosis					1 (2%)	
Capsule, Hemorrhage			1 (2%)			
Hepatocyte, Degeneration						
Hepatocyte, Necrosis	1 (4%)		1 (2%)	2 (4%)	3 (6%)	1 (2%)
Hepatocyte, Regeneration				1 (2%)		
Oval Cell, Hyperplasia	1 (4%)	1 (4%)	3 (6%)	1 (2%)	5 (10%)	
Mesentery	(1)	(1)	(1)	(2)	(3)	(1)
Fat, Abscess						
Fat, Fibrosis						
Fat, Foreign Body						
Fat, Hemorrhage				1 (50%)		
Fat, Inflammation, Granulomatous						
Fat, Inflammation, Chronic				1 (50%)		
Fat, Necrosis	1 (100%)	1 (100%)	1 (100%)	2 (100%)	3 (100%)	
Oral Mucosa	(0)	(0)	(1)	(0)	(1)	(0)
Pancreas	(26)	(25)	(47)	(46)	(47)	(49)
Basophilic Focus	1 (4%)	1 (4%)	1 (2%)	1 (2%)	4 (9%)	2 (4%)
Cyst Multilocular						1 (2%)
Fibrosis				1 (2%)	1 (2%)	
Hemorrhage			1 (2%)		2 (4%)	
Infiltration Cellular, Lymphocyte	18 (69%)	16 (64%)	37 (79%)	35 (76%)	32 (68%)	37 (76%)
Inflammation, Chronic Active		2 (8%)			3 (6%)	1 (2%)
Lipomatosis	7 (27%)	7 (28%)	13 (28%)	9 (20%)	15 (32%)	9 (18%)
Mineralization						1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Necrosis						
Pigmentation	8 (31%)	15 (60%)	23 (49%)	33 (72%)	20 (43%)	28 (57%)
Polyarteritis				1 (2%)	1 (2%)	2 (4%)
Thrombosis			1 (2%)		1 (2%)	
Vacuolization Cytoplasmic			1 (2%)			
Acinar Cell, Hyperplasia	1 (4%)	1 (4%)	2 (4%)	2 (4%)		
Acinus, Degeneration	20 (77%)	21 (84%)	41 (87%)	38 (83%)	34 (72%)	41 (84%)
Artery, Fibrosis			1 (2%)			
Artery, Inflammation, Chronic Active			1 (2%)			
Artery, Mineralization			1 (2%)		2 (4%)	
Artery, Pigmentation						
Duct, Dilatation	1 (4%)					
Salivary Glands	(0)	(0)	(0)	(0)	(0)	(1)
Inflammation, Chronic Active						1 (100%)
Stomach, Forestomach	(17)	(15)	(31)	(33)	(34)	(37)
Cyst Epithelial Inclusion		1 (7%)		1 (3%)	1 (3%)	
Edema					2 (6%)	1 (3%)
Fibrosis				1 (3%)		1 (3%)
Hyperplasia, Basal Cell						
Inflammation, Chronic Active	1 (6%)		2 (6%)	2 (6%)		2 (5%)
Mineralization						
Necrosis						
Perforation				1 (3%)		
Ulcer	1 (6%)		2 (6%)	1 (3%)		1 (3%)
Epithelium, Hyperplasia	2 (12%)	1 (7%)	2 (6%)	2 (6%)	4 (12%)	3 (8%)
Stomach, Glandular	(16)	(12)	(30)	(29)	(27)	(35)
Cyst			1 (3%)			
Cyst Epithelial Inclusion						
Edema						1 (3%)
Hemorrhage			1 (3%)			
Infiltration Cellular, Polymorphonuclear			1 (3%)			
Inflammation, Chronic Active		1 (8%)				1 (3%)
Mineralization	1 (6%)		7 (23%)	1 (3%)	5 (19%)	2 (6%)
Necrosis		1 (8%)				
Ulcer		1 (8%)	1 (3%)			
Epithelium, Hyperplasia			2 (7%)		2 (7%)	

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Tongue	(0)	(0)	(0)	(0)	(0)	(1)
Hemorrhage Epithelium, Hyperplasia						1 (100%)

CARDIOVASCULAR SYSTEM

Blood Vessel	(26)	(26)	(50)	(48)	(48)	(50)
Dilatation						
Mineralization	2 (8%)		8 (16%)	2 (4%)	6 (13%)	4 (8%)
Polyarteritis						
Thrombosis						
Intima, Proliferation						1 (2%)
Media, Proliferation						
Heart	(26)	(26)	(50)	(48)	(48)	(50)
Cardiomyopathy	24 (92%)	24 (92%)	45 (90%)	44 (92%)	45 (94%)	48 (96%)
Fibrosis						
Inflammation, Chronic			1 (2%)			
Inflammation, Chronic Active						
Metaplasia, Osseous		2 (8%)	2 (4%)	2 (4%)	3 (6%)	2 (4%)
Mineralization	2 (8%)		9 (18%)	1 (2%)	6 (13%)	2 (4%)
Polyarteritis						
Thrombosis		1 (4%)		3 (6%)	2 (4%)	1 (2%)
Atrium, Dilatation						
Endocardium, Hyperplasia						
Myocardium, Necrosis						
Pericardium, Fibrosis						
Pericardium, Necrosis						
Ventricle, Dilatation						

ENDOCRINE SYSTEM

Adrenal Cortex	(26)	(26)	(47)	(47)	(48)	(49)
Accessory Adrenal Cortical Nodule		1 (4%)			1 (2%)	1 (2%)
Angiectasis				3 (6%)	1 (2%)	2 (4%)
Atrophy			1 (2%)			

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Congestion				1 (2%)		
Degeneration, Cystic		1 (4%)	3 (6%)	1 (2%)	3 (6%)	3 (6%)
Hyperplasia		5 (19%)	5 (11%)	7 (15%)	6 (13%)	4 (8%)
Hypertrophy	7 (27%)	2 (8%)	2 (4%)	2 (4%)		4 (8%)
Infiltration Cellular, Lymphocyte						
Metaplasia, Osseous	1 (4%)			1 (2%)		1 (2%)
Necrosis						1 (2%)
Polyarteritis						
Vacuolization Cytoplasmic	10 (38%)	11 (42%)	21 (45%)	20 (43%)	19 (40%)	18 (37%)
Adrenal Medulla	(26)	(26)	(47)	(46)	(48)	(49)
Angiectasis						
Cyst				1 (2%)		
Degeneration, Cystic						
Hemorrhage			1 (2%)			
Hyperplasia	5 (19%)	6 (23%)	8 (17%)	9 (20%)	10 (21%)	7 (14%)
Necrosis						1 (2%)
Islets, Pancreatic	(26)	(26)	(48)	(47)	(48)	(48)
Hemorrhage				1 (2%)		
Hyperplasia	1 (4%)		2 (4%)			
Parathyroid Gland	(25)	(25)	(49)	(46)	(46)	(49)
Hyperplasia	7 (28%)	11 (44%)	22 (45%)	17 (37%)	27 (59%)	23 (47%)
Inflammation, Chronic Active			1 (2%)			
Necrosis			1 (2%)			
Pituitary Gland	(26)	(26)	(46)	(48)	(48)	(49)
Angiectasis	7 (27%)	3 (12%)	14 (30%)	6 (13%)	7 (15%)	9 (18%)
Atrophy						
Fibrosis						
Hemorrhage	1 (4%)		1 (2%)		1 (2%)	1 (2%)
Inflammation, Chronic		1 (4%)				
Mineralization				1 (2%)		
Necrosis			1 (2%)			
Pigmentation						
Thrombosis		1 (4%)				
Pars Distalis, Cyst	2 (8%)	4 (15%)	4 (9%)	6 (13%)	5 (10%)	10 (20%)
Pars Distalis, Cyst Multilocular			2 (4%)	2 (4%)	3 (6%)	
Pars Distalis, Degeneration						1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Pars Distalis, Hyperplasia	10 (38%)	13 (50%)	12 (26%)	16 (33%)	18 (38%)	15 (31%)
Pars Distalis, Hypertrophy	2 (8%)	2 (8%)	1 (2%)	2 (4%)	3 (6%)	3 (6%)
Pars Distalis, Vacuolization Cytoplasmic						
Pars Intermedia, Cyst			2 (4%)	3 (6%)	1 (2%)	1 (2%)
Pars Intermedia, Hyperplasia		1 (4%)				
Rathke's Cleft, Cyst	1 (4%)					
Thyroid Gland	(25)	(25)	(43)	(45)	(44)	(45)
Inflammation, Chronic Active						
Polyarteritis						
Ultimobranchial Cyst	1 (4%)	3 (12%)	3 (7%)	5 (11%)	5 (11%)	2 (4%)
C-cell, Hyperplasia	12 (48%)	7 (28%)	12 (28%)	18 (40%)	11 (25%)	19 (42%)
Follicle, Cyst	1 (4%)				3 (7%)	3 (7%)
Follicular Cell, Hyperplasia	2 (8%)	3 (12%)	6 (14%)	6 (13%)	9 (20%)	10 (22%)

GENERAL BODY SYSTEM

Peritoneum	(0)	(0)	(0)	(0)	(0)	(0)
Tissue NOS	(0)	(1)	(0)	(1)	(0)	(1)
Cyst						
Hemorrhage		1 (100%)				
Mineralization						
Thrombosis		1 (100%)				

GENITAL SYSTEM

Bulbourethral Gland	(0)	(0)	(0)	(1)	(0)	(0)
Dilatation				1 (100%)		
Coagulating Gland	(26)	(25)	(45)	(45)	(44)	(50)
Atrophy		1 (4%)	1 (2%)	1 (2%)	4 (9%)	1 (2%)
Cyst, Mucinous				1 (2%)		
Degeneration, Cystic						
Edema						
Fibrosis	1 (4%)			1 (2%)		1 (2%)
Infiltration Cellular, Lymphocyte						
Inflammation, Suppurative			1 (2%)			

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Inflammation, Chronic				1 (2%)		
Inflammation, Chronic Active	1 (4%)		1 (2%)			1 (2%)
Necrosis			1 (2%)			
Epithelium, Hyperplasia						1 (2%)
Lumen, Dilatation	1 (4%)		1 (2%)			
Ductus Deferens	(0)	(1)	(0)	(0)	(0)	(0)
Granuloma Sperm		1 (100%)				
Epididymis	(26)	(26)	(49)	(48)	(48)	(50)
Atrophy					1 (2%)	
Exfoliated Germ Cell	6 (23%)	4 (15%)	12 (24%)	15 (31%)	11 (23%)	13 (26%)
Fibrosis				1 (2%)		1 (2%)
Granuloma Sperm						
Hypoplasia						
Hypospermia	5 (19%)	10 (38%)	14 (29%)	10 (21%)	15 (31%)	7 (14%)
Infiltration Cellular, Lymphocyte	5 (19%)	10 (38%)	14 (29%)	16 (33%)	16 (33%)	14 (28%)
Inflammation, Suppurative				1 (2%)		
Inflammation, Chronic						
Inflammation, Chronic Active						
Polyarteritis			2 (4%)	1 (2%)	3 (6%)	4 (8%)
Spermatocele					1 (2%)	
Epithelium, Degeneration				1 (2%)		
Epithelium, Hyperplasia				1 (2%)		
Mesothelium, Hyperplasia				1 (2%)		
Fat Pad, Epididymal	(0)	(0)	(0)	(0)	(0)	(4)
Inflammation, Chronic Active						1 (25%)
Mineralization						1 (25%)
Necrosis						4 (100%)
Preputial Gland	(4)	(6)	(14)	(16)	(17)	(19)
Abscess	1 (25%)	1 (17%)			1 (6%)	
Atrophy			2 (14%)		1 (6%)	3 (16%)
Cyst			1 (7%)			
Fibrosis		1 (17%)				
Hyperkeratosis	1 (25%)	1 (17%)	3 (21%)	3 (19%)	3 (18%)	5 (26%)
Infiltration Cellular, Lymphocyte						
Inflammation, Suppurative	2 (50%)	5 (83%)	9 (64%)	13 (81%)	14 (82%)	13 (68%)
Inflammation, Granulomatous			1 (7%)			

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Inflammation, Chronic Active Necrosis						1 (5%)
Duct, Dilatation	3 (75%)	6 (100%)	11 (79%)	15 (94%)	13 (76%)	15 (79%)
Epithelium, Hyperplasia			1 (7%)	1 (6%)		
Prostate, Dorsal/lateral Lobe	(26)	(25)	(46)	(48)	(48)	(50)
Atrophy					1 (2%)	
Cyst					1 (2%)	
Cyst, Mucinous	1 (4%)	1 (4%)	6 (13%)	2 (4%)	6 (13%)	5 (10%)
Edema						
Fibrosis	2 (8%)	2 (8%)	15 (33%)	8 (17%)	11 (23%)	8 (16%)
Hemorrhage			1 (2%)			
Infiltration Cellular, Lymphocyte	17 (65%)	13 (52%)	31 (67%)	30 (63%)	28 (58%)	27 (54%)
Inflammation, Suppurative	26 (100%)	22 (88%)	39 (85%)	46 (96%)	41 (85%)	42 (84%)
Inflammation, Chronic Active			1 (2%)			
Mineralization			1 (2%)			1 (2%)
Polyarteritis			1 (2%)			
Epithelium, Hyperplasia						
Muscularis, Necrosis						
Muscularis, Regeneration						
Prostate, Ventral Lobe	(26)	(26)	(48)	(47)	(47)	(50)
Atrophy	2 (8%)		2 (4%)	3 (6%)	4 (9%)	1 (2%)
Edema						
Fibrosis	2 (8%)	6 (23%)	17 (35%)	10 (21%)	12 (26%)	10 (20%)
Hemorrhage			1 (2%)			
Infiltration Cellular, Lymphocyte	6 (23%)	14 (54%)	19 (40%)	17 (36%)	15 (32%)	16 (32%)
Inflammation, Suppurative	4 (15%)	8 (31%)	10 (21%)	9 (19%)	9 (19%)	8 (16%)
Inflammation, Chronic Active	1 (4%)	1 (4%)	1 (2%)	1 (2%)		
Mineralization	1 (4%)	3 (12%)	3 (6%)	2 (4%)		2 (4%)
Necrosis			1 (2%)			
Polyarteritis				1 (2%)		1 (2%)
Epithelium, Hyperplasia	4 (15%)	7 (27%)	17 (35%)	7 (15%)	17 (36%)	16 (32%)
Seminal Vesicle	(25)	(23)	(39)	(43)	(41)	(47)
Atrophy	1 (4%)	1 (4%)	5 (13%)	6 (14%)	4 (10%)	5 (11%)
Concretion			1 (3%)			
Edema	1 (4%)					
Fibrosis						2 (4%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Infiltration Cellular, Lymphocyte						1 (2%)
Inflammation, Suppurative						
Inflammation, Chronic						
Inflammation, Chronic Active			1 (3%)	1 (2%)	1 (2%)	1 (2%)
Necrosis						
Polyarteritis						1 (2%)
Epithelium, Hyperplasia		2 (9%)	5 (13%)	1 (2%)	4 (10%)	4 (9%)
Lumen, Dilatation	2 (8%)	1 (4%)	6 (15%)	4 (9%)	2 (5%)	3 (6%)
Testes	(26)	(26)	(49)	(48)	(48)	(50)
Abscess						
Aspermia						1 (2%)
Edema						1 (2%)
Fibrosis						
Granuloma				1 (2%)		
Polyarteritis	6 (23%)	5 (19%)	18 (37%)	11 (23%)	15 (31%)	14 (28%)
Seminiferous Tubule, Degeneration	17 (65%)	21 (81%)	34 (69%)	33 (69%)	41 (85%)	36 (72%)
Seminiferous Tubule, Dilatation						1 (2%)
HEMATOPOIETIC SYSTEM						
Bone Marrow	(26)	(25)	(47)	(47)	(46)	(50)
Hypocellularity		1 (4%)		3 (6%)	2 (4%)	4 (8%)
Necrosis						
Myeloid Cell, Hyperplasia	3 (12%)	2 (8%)	4 (9%)	4 (9%)	3 (7%)	4 (8%)
Lymph Node	(7)	(6)	(16)	(17)	(15)	(15)
Axillary, Degeneration, Cystic				1 (6%)		
Axillary, Hyperplasia, Lymphoid			2 (13%)		1 (7%)	
Axillary, Infiltration Cellular, Plasma Cell			2 (13%)	1 (6%)	2 (13%)	
Brachial, Degeneration, Cystic						
Brachial, Hyperplasia, Lymphoid						
Brachial, Infiltration Cellular, Plasma Cell						
Cervical, Hyperplasia, Lymphoid						
Cervical, Infiltration Cellular, Plasma Cell						
Iliac, Degeneration, Cystic						
Iliac, Hyperplasia, Lymphoid						1 (7%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Iliac, Infiltration Cellular, Plasma Cell						1 (7%)
Inguinal, Hyperplasia, Lymphoid				1 (6%)		1 (7%)
Inguinal, Infiltration Cellular, Plasma Cell				1 (6%)		1 (7%)
Lumbar, Degeneration, Cystic	2 (29%)	3 (50%)	3 (19%)	7 (41%)	4 (27%)	3 (20%)
Lumbar, Hemorrhage					1 (7%)	
Lumbar, Hyperplasia, Lymphoid		1 (17%)	4 (25%)	3 (18%)	1 (7%)	2 (13%)
Lumbar, Infiltration Cellular, Plasma Cell	2 (29%)	1 (17%)	2 (13%)	5 (29%)	3 (20%)	3 (20%)
Lumbar, Infiltration Cellular, Polymorphonuclear					1 (7%)	
Lumbar, Inflammation, Suppurative						
Lumbar, Necrosis						
Mediastinal, Degeneration, Cystic	1 (14%)			1 (6%)	2 (13%)	1 (7%)
Mediastinal, Hemorrhage	1 (14%)			1 (6%)	3 (20%)	3 (20%)
Mediastinal, Hyperplasia, Lymphoid	1 (14%)			1 (6%)	1 (7%)	
Mediastinal, Infiltration Cellular, Histiocyte					1 (7%)	
Mediastinal, Infiltration Cellular, Mast Cell				1 (6%)		1 (7%)
Mediastinal, Infiltration Cellular, Plasma Cell	1 (14%)					1 (7%)
Mediastinal, Infiltration Cellular, Polymorphonuclear				1 (6%)		
Mediastinal, Inflammation, Suppurative						
Pancreatic, Degeneration, Cystic						
Pancreatic, Hyperplasia, Lymphoid						
Pancreatic, Infiltration Cellular, Histiocyte						
Pancreatic, Infiltration Cellular, Plasma Cell					1 (7%)	1 (7%)
Pancreatic, Pigmentation						
Popliteal, Hyperplasia, Lymphoid						
Popliteal, Infiltration Cellular, Plasma Cell						1 (7%)
Renal, Degeneration, Cystic	2 (29%)	3 (50%)	8 (50%)	9 (53%)	5 (33%)	6 (40%)
Renal, Hemorrhage	1 (14%)	1 (17%)	1 (6%)		6 (40%)	3 (20%)
Renal, Hyperplasia, Lymphoid			3 (19%)	2 (12%)		
Renal, Infiltration Cellular, Plasma Cell	3 (43%)		3 (19%)	1 (6%)	1 (7%)	1 (7%)
Renal, Pigmentation					1 (7%)	
Lymph Node, Mandibular Congestion	(6)	(7)	(8)	(8)	(14)	(9)
Degeneration, Cystic	1 (17%)	3 (43%)	2 (25%)	5 (63%)	8 (57%)	3 (33%)
Hyperplasia, Lymphoid	3 (50%)	5 (71%)	4 (50%)	5 (63%)	8 (57%)	5 (56%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Infiltration Cellular, Lymphocyte						
Infiltration Cellular, Plasma Cell	4 (67%)	6 (86%)	6 (75%)	7 (88%)	10 (71%)	5 (56%)
Lymph Node, Mesenteric	(0)	(1)	(1)	(2)	(1)	(2)
Degeneration, Cystic				1 (50%)		
Fibrosis				1 (50%)		
Hemorrhage						1 (50%)
Hyperplasia, Lymphoid						1 (50%)
Infiltration Cellular, Polymorphonuclear				1 (50%)		
Pigmentation						
Spleen	(26)	(25)	(47)	(47)	(47)	(49)
Congestion						1 (2%)
Depletion Lymphoid						
Fibrosis				1 (2%)		
Hematopoietic Cell Proliferation	6 (23%)	7 (28%)	16 (34%)	17 (36%)	9 (19%)	13 (27%)
Hemorrhage			1 (2%)			
Hyperplasia, Lymphoid		1 (4%)	1 (2%)	2 (4%)	3 (6%)	6 (12%)
Mineralization						
Necrosis	1 (4%)		2 (4%)	1 (2%)		
Pigmentation	16 (62%)	16 (64%)	26 (55%)	25 (53%)	27 (57%)	21 (43%)
Polyarteritis			1 (2%)	1 (2%)		1 (2%)
Vacuolization Cytoplasmic		1 (4%)				
Capsule, Fibrosis					1 (2%)	
Thymus	(24)	(25)	(48)	(48)	(46)	(47)
Atrophy	22 (92%)	24 (96%)	47 (98%)	45 (94%)	44 (96%)	43 (91%)
Cyst				1 (2%)		
Fibrosis						
Hemorrhage						
Polyarteritis						1 (2%)
Epithelial Cell, Hyperplasia						
INTEGUMENTARY SYSTEM						
Mammary Gland	(25)	(25)	(49)	(48)	(47)	(50)
Atypical Focus			1 (2%)			
Fibrosis					1 (2%)	

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Galactoceles		1 (4%)	3 (6%)	1 (2%)	5 (11%)	1 (2%)
Hyperplasia, Lobular	2 (8%)					1 (2%)
Inflammation, Granulomatous		1 (4%)				
Mineralization			1 (2%)		1 (2%)	
Polyarteritis						1 (2%)
Alveolus, Degeneration	14 (56%)	17 (68%)	28 (57%)	25 (52%)	22 (47%)	31 (62%)
Alveolus, Dilatation	4 (16%)	1 (4%)	15 (31%)	7 (15%)	6 (13%)	7 (14%)
Duct, Dilatation	6 (24%)	2 (8%)	15 (31%)	9 (19%)	10 (21%)	10 (20%)
Skin	(6)	(7)	(21)	(18)	(24)	(15)
Abscess				1 (6%)		
Angiectasis						
Cyst, Squamous						
Cyst Epithelial Inclusion	3 (50%)	2 (29%)	6 (29%)	3 (17%)	10 (42%)	4 (27%)
Edema						
Fibrosis				1 (6%)	1 (4%)	1 (7%)
Foreign Body						1 (7%)
Hemorrhage						
Hyperkeratosis			2 (10%)			
Inflammation, Suppurative			2 (10%)	1 (6%)	2 (8%)	1 (7%)
Inflammation, Granulomatous	1 (17%)				1 (4%)	1 (7%)
Inflammation, Chronic Active			1 (5%)	1 (6%)	1 (4%)	
Necrosis				2 (11%)		1 (7%)
Ulcer				2 (11%)	2 (8%)	1 (7%)
Epithelium, Hyperplasia			4 (19%)	1 (6%)	2 (8%)	
Epithelium, Foot, Hyperplasia	3 (50%)	1 (14%)	3 (14%)	6 (33%)	2 (8%)	3 (20%)
Foot, Edema	4 (67%)		3 (14%)	4 (22%)	1 (4%)	
Foot, Fibrosis	4 (67%)	2 (29%)	3 (14%)	5 (28%)	2 (8%)	3 (20%)
Foot, Hemorrhage						
Foot, Inflammation, Chronic Active	4 (67%)	2 (29%)	3 (14%)	6 (33%)	2 (8%)	3 (20%)
Foot, Necrosis	4 (67%)	1 (14%)	3 (14%)	4 (22%)	1 (4%)	2 (13%)
Foot, Ulcer	4 (67%)	1 (14%)	3 (14%)	4 (22%)	2 (8%)	3 (20%)
Sebaceous Gland, Hyperplasia			1 (5%)			

MUSCULOSKELETAL SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Bone	(1)	(1)	(3)	(0)	(1)	(1)
Humerus, Abscess			1 (33%)			
Humerus, Osteopetrosis			1 (33%)			
Joint, Fibrosis						
Joint, Hyperostosis						
Joint, Inflammation, Chronic Active						
Mandible, Osteopetrosis			1 (33%)			
Metatarsal, Hyperostosis						1 (100%)
Rib, Hyperostosis						
Tarsal, Hyperostosis		1 (100%)				
Tibia, Hyperostosis						
Vertebra, Fibrous Osteodystrophy					1 (100%)	
Bone, Femur	(26)	(26)	(50)	(48)	(48)	(50)
Fibrous Osteodystrophy	1 (4%)		4 (8%)	1 (2%)	3 (6%)	1 (2%)
Osteopetrosis			2 (4%)		1 (2%)	
Skeletal Muscle	(2)	(0)	(1)	(1)	(1)	(2)
Degeneration						
Fibrosis						
Hemorrhage						
Inflammation, Chronic Active						
Necrosis						

NERVOUS SYSTEM

Brain, Brain Stem	(26)	(26)	(50)	(48)	(47)	(50)
Compression	6 (23%)	4 (15%)	11 (22%)	10 (21%)	10 (21%)	10 (20%)
Cyst						
Gliosis		1 (4%)				1 (2%)
Hemorrhage			1 (2%)	1 (2%)	1 (2%)	1 (2%)
Necrosis		1 (4%)				
Pigmentation						
Thrombosis						
Vacuolization Cytoplasmic						1 (2%)
Brain, Cerebellum	(26)	(26)	(49)	(48)	(48)	(50)
Compression						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Gliosis						
Hemorrhage	1 (4%)				1 (2%)	
Necrosis					1 (2%)	
Polyarteritis						
Brain, Cerebrum	(26)	(26)	(49)	(48)	(48)	(50)
Compression						
Gliosis					1 (2%)	1 (2%)
Hemorrhage	1 (4%)				2 (4%)	
Mineralization						
Necrosis					1 (2%)	1 (2%)
Pigmentation						
Polyarteritis						
Thrombosis						
Ventricle, Dilatation	2 (8%)	4 (15%)	7 (14%)	7 (15%)	6 (13%)	4 (8%)
Nerve Trigeminal	(4)	(3)	(2)	(0)	(2)	(6)
Axon, Degeneration	2 (50%)	3 (100%)	1 (50%)		1 (50%)	2 (33%)
Peripheral Nerve, Sciatic	(4)	(3)	(2)	(0)	(2)	(6)
Axon, Degeneration						
Peripheral Nerve, Tibial	(4)	(3)	(2)	(0)	(2)	(6)
Axon, Degeneration						
Spinal Cord, Cervical	(4)	(3)	(2)	(0)	(2)	(6)
Hemorrhage						
Axon, Degeneration						
Spinal Cord, Lumbar	(4)	(3)	(2)	(0)	(2)	(6)
Axon, Degeneration	3 (75%)	2 (67%)	2 (100%)		1 (50%)	5 (83%)
Spinal Cord, Thoracic	(4)	(3)	(2)	(0)	(2)	(6)
Hemorrhage						
Axon, Degeneration						1 (17%)
RESPIRATORY SYSTEM						
Lung	(19)	(13)	(36)	(33)	(39)	(40)
Abscess	1 (5%)					
Congestion	1 (5%)	1 (8%)	1 (3%)			1 (3%)
Fibrosis				1 (3%)		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Foreign Body	2 (11%)		1 (3%)	6 (18%)	1 (3%)	2 (5%)
Hemorrhage	1 (5%)			1 (3%)		1 (3%)
Infiltration Cellular, Histiocyte	4 (21%)	7 (54%)	10 (28%)	9 (27%)	13 (33%)	14 (35%)
Infiltration Cellular, Lymphocyte					1 (3%)	
Inflammation, Suppurative					1 (3%)	
Inflammation, Granulomatous	1 (5%)		1 (3%)	6 (18%)	1 (3%)	1 (3%)
Inflammation, Chronic	1 (5%)			2 (6%)		
Inflammation, Chronic Active	2 (11%)			1 (3%)	2 (5%)	2 (5%)
Metaplasia, Osseous				2 (6%)	2 (5%)	1 (3%)
Mineralization			1 (3%)			1 (3%)
Necrosis						
Thrombosis	1 (5%)					
Alveolar Epithelium, Hyperplasia		2 (15%)	1 (3%)	3 (9%)	6 (15%)	1 (3%)
Bronchiole, Epithelium, Hyperplasia					1 (3%)	
Goblet Cell, Metaplasia						
Pleura, Fibrosis	1 (5%)					
Pleura, Foreign Body						
Pleura, Inflammation, Suppurative						
Pleura, Necrosis						
Subpleura, Cyst					1 (3%)	
Nose	(17)	(12)	(30)	(32)	(31)	(37)
Autolysis	1 (6%)	1 (8%)	2 (7%)	1 (3%)		5 (14%)
Cyst Epithelial Inclusion				1 (3%)		
Exudate						
Fibrosis						
Fibrous Osteodystrophy	1 (6%)		3 (10%)	1 (3%)	3 (10%)	1 (3%)
Foreign Body			1 (3%)	1 (3%)	1 (3%)	1 (3%)
Hemorrhage	1 (6%)					
Inflammation, Suppurative		1 (8%)	1 (3%)	3 (9%)	4 (13%)	2 (5%)
Inflammation, Chronic Active				2 (6%)		1 (3%)
Osteopetrosis			1 (3%)			
Epithelium, Upper Molar, Hyperplasia				1 (3%)		
Olfactory Epithelium, Accumulation, Hyaline Droplet	3 (18%)	6 (50%)	7 (23%)	18 (56%)	18 (58%)	15 (41%)
Olfactory Epithelium, Hyperplasia						
Posterior To Upper Incisor, Malformation					1 (3%)	1 (3%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Respiratory Epithelium, Accumulation, Hyaline Droplet	3 (18%)	3 (25%)	5 (17%)	8 (25%)	11 (35%)	5 (14%)
Respiratory Epithelium, Hyperplasia		1 (8%)				
Respiratory Epithelium, Hyperplasia, Goblet Cell			1 (3%)	4 (13%)	2 (6%)	5 (14%)
Respiratory Epithelium, Ulcer						
Transitional Epithelium, Accumulation, Hyaline Droplet	1 (6%)			2 (6%)	1 (3%)	1 (3%)
Upper Molar, Fibrosis						
Upper Molar, Foreign Body						
Upper Molar, Inflammation, Suppurative	1 (6%)			1 (3%)	1 (3%)	
Upper Molar, Keratin Cyst			1 (3%)		1 (3%)	
Upper Molar, Necrosis					1 (3%)	
Trachea	(17)	(12)	(27)	(26)	(27)	(32)
Inflammation, Chronic Active Epithelium, Hyperplasia					1 (4%)	
Peritracheal Tissue, Hemorrhage	1 (6%)				1 (4%)	
Peritracheal Tissue, Inflammation, Chronic Active	1 (6%)					

SPECIAL SENSES SYSTEM

Ear	(1)	(0)	(0)	(0)	(0)	(1)
Eye	(3)	(2)	(2)	(1)	(2)	(1)
Cataract			1 (50%)	1 (100%)	1 (50%)	1 (100%)
Fibrosis					1 (50%)	
Inflammation, Chronic Active					1 (50%)	
Mineralization						
Retinal Detachment	1 (33%)					
Rupture		1 (50%)				
Anterior Chamber, Edema	1 (33%)					
Cornea, Bacterium	1 (33%)					
Cornea, Edema	1 (33%)					
Cornea, Inflammation, Suppurative	1 (33%)				1 (50%)	
Cornea, Inflammation, Chronic Active	1 (33%)		2 (100%)			
Cornea, Mineralization			1 (50%)			

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Cornea, Necrosis					1 (50%)	
Cornea, Ulcer	1 (33%)				2 (100%)	
Retina, Autolysis						
Retina, Degeneration	2 (67%)		2 (100%)	1 (100%)		
Lacrimal Gland	(0)	(0)	(0)	(1)	(0)	(0)
Zymbal's Gland	(1)	(1)	(0)	(2)	(1)	(1)
Cyst, Squamous						
Fibrosis				1 (50%)		
Inflammation, Suppurative				1 (50%)		
Duct, Dilatation				1 (50%)		
URINARY SYSTEM						
Kidney	(26)	(26)	(50)	(48)	(48)	(50)
Accumulation, Hyaline Droplet	1 (4%)			2 (4%)	1 (2%)	2 (4%)
Casts Protein	1 (4%)					1 (2%)
Fibrosis			1 (2%)			
Hemorrhage	1 (4%)			2 (4%)	1 (2%)	1 (2%)
Infarct			1 (2%)			
Infiltration Cellular, Polymorphonuclear	2 (8%)	5 (19%)	8 (16%)	5 (10%)	9 (19%)	8 (16%)
Inflammation, Chronic Active						
Mineralization	1 (4%)	1 (4%)	10 (20%)	2 (4%)	3 (6%)	2 (4%)
Necrosis				2 (4%)	1 (2%)	
Nephropathy	21 (81%)	23 (88%)	48 (96%)	45 (94%)	45 (94%)	48 (96%)
Pigmentation						
Polyarteritis					1 (2%)	2 (4%)
Polycystic Kidney	1 (4%)		1 (2%)	1 (2%)		1 (2%)
Thrombosis					1 (2%)	1 (2%)
Vacuolization Cytoplasmic						
Artery, Intima, Proliferation						
Cortex, Cyst	11 (42%)	8 (31%)	8 (16%)	14 (29%)	12 (25%)	12 (24%)
Pelvis, Dilatation			3 (6%)	1 (2%)	1 (2%)	2 (4%)
Pelvis, Infiltration Cellular, Lymphocyte						
Pelvis, Inflammation, Chronic Active						1 (2%)
Renal Tubule, Cyst	14 (54%)	10 (38%)	18 (36%)	12 (25%)	20 (42%)	21 (42%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 0.05 EE2 M	F1 0.50 EE2 M	F1 Veh. StDose M	F1 2.5 StDose M	F1 25.0 StDose M	F1 250.0StDose M
Renal Tubule, Dilatation						
Renal Tubule, Hyperplasia, Atypical Transitional Epithelium, Hyperplasia	2 (8%)	1 (4%)	12 (24%)	9 (19%)	12 (25%)	12 (24%)
Urinary Bladder	(1)	(0)	(6)	(1)	(4)	(4)
Calculus Micro Observation Only						
Fibrosis						
Hemorrhage			2 (33%)			
Inflammation, Chronic Active						
Necrosis						
Lumen, Dilatation	1 (100%)		6 (100%)	1 (100%)	4 (100%)	4 (100%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
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Disposition Summary

Animals Initially In Study	50	46
Early Deaths		
Moribund Sacrifice	17	26
Natural Death	7	6
Survivors		
Moribund Sacrifice	10	3
Natural Death	1	2
Terminal Sacrifice	15	9
Animals Examined Microscopically	50	46

ALIMENTARY SYSTEM

Esophagus	(35)	(36)
Dilatation		
Foreign Body		
Perforation		
Periesophageal Tissue, Foreign Body		
Periesophageal Tissue, Inflammation, Suppurative		
Periesophageal Tissue, Necrosis		
Intestine Large, Cecum	(1)	(0)
Dilatation		
Hyperplasia, Lymphoid		
Intestine Large, Colon	(29)	(31)
Dilatation		
Fibrosis		
Hyperplasia, Goblet Cell		
Inflammation, Suppurative		
Ulcer		
Epithelium, Hyperplasia		
Intestine Large, Rectum	(0)	(0)
Fibrosis		
Hyperplasia, Goblet Cell		
Inflammation, Suppurative		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Intestine Small, Duodenum	(0)	(1)
Intestine Small, Ileum	(26)	(30)
Dilatation		
Inflammation, Suppurative		
Epithelium, Hyperplasia		
Intestine Small, Jejunum	(0)	(2)
Bacterium		1 (50%)
Dilatation		
Diverticulum		
Fibrosis		1 (50%)
Foreign Body		1 (50%)
Hyperplasia, Lymphoid		
Inflammation, Suppurative		1 (50%)
Inflammation, Chronic Active		1 (50%)
Metaplasia, Osseous		
Mineralization		1 (50%)
Necrosis		1 (50%)
Perforation		1 (50%)
Ulcer		1 (50%)
Liver	(50)	(46)
Angiectasis	4 (8%)	3 (7%)
Bacterium		
Basophilic Focus	11 (22%)	5 (11%)
Cholangiofibrosis		1 (2%)
Clear Cell Focus	10 (20%)	7 (15%)
Congestion		
Cyst	1 (2%)	1 (2%)
Deformity		1 (2%)
Degeneration, Cystic	30 (60%)	18 (39%)
Eosinophilic Focus		
Fatty Change	1 (2%)	1 (2%)
Fibrosis		
Hematopoietic Cell Proliferation	3 (6%)	
Hemorrhage		2 (4%)
Hepatodiaphragmatic Nodule	4 (8%)	5 (11%)
Infiltration Cellular, Mononuclear Cell	33 (66%)	29 (63%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Infiltration Cellular, Polymorphonuclear		1 (2%)
Inflammation, Chronic	1 (2%)	
Inflammation, Chronic Active		1 (2%)
Mixed Cell Focus		
Pigmentation		
Polyarteritis	1 (2%)	1 (2%)
Tension Lipidosis	2 (4%)	
Vacuolization Cytoplasmic	12 (24%)	13 (28%)
Bile Duct, Hyperplasia	20 (40%)	13 (28%)
Biliary Tract, Cyst	2 (4%)	
Biliary Tract, Cyst Multilocular		1 (2%)
Biliary Tract, Fibrosis	17 (34%)	18 (39%)
Capsule, Fibrosis		
Capsule, Hemorrhage		
Hepatocyte, Degeneration		
Hepatocyte, Necrosis	2 (4%)	2 (4%)
Hepatocyte, Regeneration		
Oval Cell, Hyperplasia	1 (2%)	3 (7%)
Mesentery	(1)	(2)
Fat, Abscess		1 (50%)
Fat, Fibrosis		
Fat, Foreign Body		1 (50%)
Fat, Hemorrhage		
Fat, Inflammation, Granulomatous		1 (50%)
Fat, Inflammation, Chronic		
Fat, Necrosis	1 (100%)	2 (100%)
Oral Mucosa	(1)	(0)
Pancreas	(50)	(44)
Basophilic Focus		1 (2%)
Cyst Multilocular	1 (2%)	
Fibrosis		
Hemorrhage		
Infiltration Cellular, Lymphocyte	40 (80%)	32 (73%)
Inflammation, Chronic Active		2 (5%)
Lipomatosis	10 (20%)	13 (30%)
Mineralization		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Necrosis		
Pigmentation	23 (46%)	21 (48%)
Polyarteritis	5 (10%)	2 (5%)
Thrombosis	1 (2%)	
Vacuolization Cytoplasmic Acinar Cell, Hyperplasia		1 (2%)
Acinus, Degeneration	41 (82%)	34 (77%)
Artery, Fibrosis		
Artery, Inflammation, Chronic Active		
Artery, Mineralization	1 (2%)	1 (2%)
Artery, Pigmentation		
Duct, Dilatation		
Salivary Glands	(0)	(0)
Inflammation, Chronic Active		
Stomach, Forestomach	(34)	(37)
Cyst Epithelial Inclusion		
Edema		
Fibrosis		
Hyperplasia, Basal Cell		
Inflammation, Chronic Active	1 (3%)	2 (5%)
Mineralization		
Necrosis		1 (3%)
Perforation		
Ulcer		1 (3%)
Epithelium, Hyperplasia	1 (3%)	2 (5%)
Stomach, Glandular	(33)	(36)
Cyst		
Cyst Epithelial Inclusion		
Edema		
Hemorrhage		
Infiltration Cellular, Polymorphonuclear		
Inflammation, Chronic Active		
Mineralization	7 (21%)	2 (6%)
Necrosis		
Ulcer		
Epithelium, Hyperplasia	3 (9%)	1 (3%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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Lab: NCTR

Sprague Dawley (NCTR)
RATS MALE

F1 2500.StDose M

F1 25000StDose M

Tongue
Hemorrhage
Epithelium, Hyperplasia

(0) (0)

CARDIOVASCULAR SYSTEM

Blood Vessel
Dilatation
Mineralization
Polyarteritis
Thrombosis
Intima, Proliferation
Media, Proliferation
Heart
Cardiomyopathy
Fibrosis
Inflammation, Chronic
Inflammation, Chronic Active
Metaplasia, Osseous
Mineralization
Polyarteritis
Thrombosis
Atrium, Dilatation
Endocardium, Hyperplasia
Myocardium, Necrosis
Pericardium, Fibrosis
Pericardium, Necrosis
Ventricle, Dilatation

(50) (46)
7 (14%) 4 (9%)
(50) (46)
47 (94%) 41 (89%)
3 (6%) 2 (4%)
7 (14%) 4 (9%)
1 (2%)
2 (4%) 1 (2%)
1 (2%)
1 (2%)
1 (2%)

ENDOCRINE SYSTEM

Adrenal Cortex
Accessory Adrenal Cortical Nodule
Angiectasis
Atrophy

(50) (44)
1 (2%) 2 (5%)
2 (4%) 2 (5%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Congestion	1 (2%)	
Degeneration, Cystic	3 (6%)	1 (2%)
Hyperplasia	5 (10%)	4 (9%)
Hypertrophy	3 (6%)	2 (5%)
Infiltration Cellular, Lymphocyte		
Metaplasia, Osseous		
Necrosis	1 (2%)	
Polyarteritis		1 (2%)
Vacuolization Cytoplasmic	18 (36%)	20 (45%)
Adrenal Medulla	(50)	(44)
Angiectasis		
Cyst		
Degeneration, Cystic	1 (2%)	
Hemorrhage		
Hyperplasia	17 (34%)	11 (25%)
Necrosis		
Islets, Pancreatic	(50)	(44)
Hemorrhage		
Hyperplasia	1 (2%)	
Parathyroid Gland	(50)	(43)
Hyperplasia	30 (60%)	23 (53%)
Inflammation, Chronic Active		
Necrosis		
Pituitary Gland	(50)	(43)
Angiectasis	10 (20%)	6 (14%)
Atrophy		
Fibrosis	1 (2%)	
Hemorrhage	1 (2%)	
Inflammation, Chronic		
Mineralization	1 (2%)	
Necrosis		
Pigmentation		
Thrombosis		
Pars Distalis, Cyst	11 (22%)	5 (12%)
Pars Distalis, Cyst Multilocular	2 (4%)	3 (7%)
Pars Distalis, Degeneration		

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Experiment Number: 10034 - 04

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Species/Strain: RATS/Sprague Dawley (NCTR)

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Pars Distalis, Hyperplasia	19 (38%)	19 (44%)
Pars Distalis, Hypertrophy	1 (2%)	4 (9%)
Pars Distalis, Vacuolization Cytoplasmic		
Pars Intermedia, Cyst	2 (4%)	2 (5%)
Pars Intermedia, Hyperplasia		
Rathke's Cleft, Cyst		
Thyroid Gland	(48)	(42)
Inflammation, Chronic Active		
Polyarteritis		
Ultimobranchial Cyst	5 (10%)	4 (10%)
C-cell, Hyperplasia	18 (38%)	13 (31%)
Follicle, Cyst		2 (5%)
Follicular Cell, Hyperplasia	6 (13%)	7 (17%)

GENERAL BODY SYSTEM

Peritoneum	(0)	(0)
Tissue NOS	(0)	(1)
Cyst		
Hemorrhage		
Mineralization		
Thrombosis		

GENITAL SYSTEM

Bulbourethral Gland	(0)	(0)
Dilatation		
Coagulating Gland	(48)	(44)
Atrophy	2 (4%)	2 (5%)
Cyst, Mucinous		
Degeneration, Cystic		
Edema		1 (2%)
Fibrosis		
Infiltration Cellular, Lymphocyte		1 (2%)
Inflammation, Suppurative		1 (2%)

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Experiment Number: 10034 - 04

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Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

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Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Inflammation, Chronic		
Inflammation, Chronic Active		1 (2%)
Necrosis		
Epithelium, Hyperplasia		
Lumen, Dilatation	1 (2%)	
Ductus Deferens	(0)	(0)
Granuloma Sperm		
Epididymis	(50)	(46)
Atrophy		
Exfoliated Germ Cell	17 (34%)	9 (20%)
Fibrosis		
Granuloma Sperm		
Hypoplasia		
Hypospermia	16 (32%)	8 (17%)
Infiltration Cellular, Lymphocyte	12 (24%)	13 (28%)
Inflammation, Suppurative		
Inflammation, Chronic		1 (2%)
Inflammation, Chronic Active		
Polyarteritis	5 (10%)	2 (4%)
Spermatocoele		1 (2%)
Epithelium, Degeneration		
Epithelium, Hyperplasia		
Mesothelium, Hyperplasia		
Fat Pad, Epididymal	(0)	(0)
Inflammation, Chronic Active		
Mineralization		
Necrosis		
Preputial Gland	(15)	(12)
Abscess		
Atrophy		
Cyst	1 (7%)	
Fibrosis		
Hyperkeratosis	3 (20%)	2 (17%)
Infiltration Cellular, Lymphocyte		
Inflammation, Suppurative	13 (87%)	8 (67%)
Inflammation, Granulomatous		

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Experiment Number: 10034 - 04

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Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Inflammation, Chronic Active		
Necrosis	1 (7%)	
Duct, Dilatation	14 (93%)	10 (83%)
Epithelium, Hyperplasia		
Prostate, Dorsal/lateral Lobe	(49)	(45)
Atrophy	1 (2%)	
Cyst		
Cyst, Mucinous	7 (14%)	4 (9%)
Edema		1 (2%)
Fibrosis	12 (24%)	6 (13%)
Hemorrhage	1 (2%)	
Infiltration Cellular, Lymphocyte	35 (71%)	22 (49%)
Inflammation, Suppurative	44 (90%)	38 (84%)
Inflammation, Chronic Active		1 (2%)
Mineralization	2 (4%)	
Polyarteritis		
Epithelium, Hyperplasia		1 (2%)
Muscularis, Necrosis		
Muscularis, Regeneration		
Prostate, Ventral Lobe	(49)	(45)
Atrophy	4 (8%)	4 (9%)
Edema		1 (2%)
Fibrosis	12 (24%)	8 (18%)
Hemorrhage	1 (2%)	
Infiltration Cellular, Lymphocyte	20 (41%)	18 (40%)
Inflammation, Suppurative	10 (20%)	9 (20%)
Inflammation, Chronic Active		1 (2%)
Mineralization	3 (6%)	4 (9%)
Necrosis		
Polyarteritis	2 (4%)	2 (4%)
Epithelium, Hyperplasia	14 (29%)	13 (29%)
Seminal Vesicle	(48)	(42)
Atrophy	5 (10%)	3 (7%)
Concretion		
Edema		1 (2%)
Fibrosis	1 (2%)	

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Experiment Number: 10034 - 04
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 Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Infiltration Cellular, Lymphocyte Inflammation, Suppurative		
Inflammation, Chronic	1 (2%)	
Inflammation, Chronic Active	2 (4%)	1 (2%)
Necrosis		
Polyarteritis	1 (2%)	
Epithelium, Hyperplasia	4 (8%)	6 (14%)
Lumen, Dilatation	1 (2%)	4 (10%)
Testes	(49)	(45)
Abscess		1 (2%)
Aspermia		
Edema		
Fibrosis		1 (2%)
Granuloma		
Polyarteritis	28 (57%)	16 (36%)
Seminiferous Tubule, Degeneration	40 (82%)	27 (60%)
Seminiferous Tubule, Dilatation	1 (2%)	2 (4%)

HEMATOPOIETIC SYSTEM

Bone Marrow	(49)	(45)
Hypocellularity	2 (4%)	4 (9%)
Necrosis		
Myeloid Cell, Hyperplasia	5 (10%)	5 (11%)
Lymph Node	(27)	(16)
Axillary, Degeneration, Cystic		
Axillary, Hyperplasia, Lymphoid		
Axillary, Infiltration Cellular, Plasma Cell		
Brachial, Degeneration, Cystic	1 (4%)	1 (6%)
Brachial, Hyperplasia, Lymphoid	1 (4%)	
Brachial, Infiltration Cellular, Plasma Cell	1 (4%)	
Cervical, Hyperplasia, Lymphoid		
Cervical, Infiltration Cellular, Plasma Cell		
Iliac, Degeneration, Cystic		
Iliac, Hyperplasia, Lymphoid		

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Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

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2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Iliac, Infiltration Cellular, Plasma Cell		
Inguinal, Hyperplasia, Lymphoid	1 (4%)	
Inguinal, Infiltration Cellular, Plasma Cell	1 (4%)	
Lumbar, Degeneration, Cystic	9 (33%)	3 (19%)
Lumbar, Hemorrhage		
Lumbar, Hyperplasia, Lymphoid	5 (19%)	2 (13%)
Lumbar, Infiltration Cellular, Plasma Cell	9 (33%)	1 (6%)
Lumbar, Infiltration Cellular, Polymorphonuclear		
Lumbar, Inflammation, Suppurative		
Lumbar, Necrosis		
Mediastinal, Degeneration, Cystic	1 (4%)	2 (13%)
Mediastinal, Hemorrhage		2 (13%)
Mediastinal, Hyperplasia, Lymphoid	1 (4%)	1 (6%)
Mediastinal, Infiltration Cellular, Histiocyte		
Mediastinal, Infiltration Cellular, Mast Cell		
Mediastinal, Infiltration Cellular, Plasma Cell	1 (4%)	1 (6%)
Mediastinal, Infiltration Cellular, Polymorphonuclear		
Mediastinal, Inflammation, Suppurative		1 (6%)
Pancreatic, Degeneration, Cystic	1 (4%)	
Pancreatic, Hyperplasia, Lymphoid	1 (4%)	
Pancreatic, Infiltration Cellular, Histiocyte		1 (6%)
Pancreatic, Infiltration Cellular, Plasma Cell		1 (6%)
Pancreatic, Pigmentation		1 (6%)
Popliteal, Hyperplasia, Lymphoid		
Popliteal, Infiltration Cellular, Plasma Cell		
Renal, Degeneration, Cystic	16 (59%)	6 (38%)
Renal, Hemorrhage	5 (19%)	1 (6%)
Renal, Hyperplasia, Lymphoid	1 (4%)	1 (6%)
Renal, Infiltration Cellular, Plasma Cell	5 (19%)	1 (6%)
Renal, Pigmentation	2 (7%)	
Lymph Node, Mandibular Congestion	(13)	(15)
Degeneration, Cystic	5 (38%)	7 (47%)
Hyperplasia, Lymphoid	9 (69%)	6 (40%)

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 2 Year Animals

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Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Infiltration Cellular, Lymphocyte		
Infiltration Cellular, Plasma Cell	10 (77%)	9 (60%)
Lymph Node, Mesenteric	(2)	(3)
Degeneration, Cystic		
Fibrosis		
Hemorrhage		
Hyperplasia, Lymphoid		
Infiltration Cellular, Polymorphonuclear		
Pigmentation		
Spleen	(49)	(45)
Congestion		
Depletion Lymphoid		
Fibrosis		
Hematopoietic Cell Proliferation	24 (49%)	12 (27%)
Hemorrhage		
Hyperplasia, Lymphoid	6 (12%)	3 (7%)
Mineralization		
Necrosis		1 (2%)
Pigmentation	24 (49%)	22 (49%)
Polyarteritis	2 (4%)	1 (2%)
Vacuolization Cytoplasmic		
Capsule, Fibrosis		
Thymus	(48)	(42)
Atrophy	46 (96%)	38 (90%)
Cyst		
Fibrosis	1 (2%)	
Hemorrhage		1 (2%)
Polyarteritis		
Epithelial Cell, Hyperplasia	1 (2%)	

INTEGUMENTARY SYSTEM

Mammary Gland	(49)	(45)
Atypical Focus		
Fibrosis		

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 Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Galactocele	1 (2%)	
Hyperplasia, Lobular Inflammation, Granulomatous Mineralization Polyarteritis		
Alveolus, Degeneration	33 (67%)	23 (51%)
Alveolus, Dilatation	6 (12%)	7 (16%)
Duct, Dilatation	11 (22%)	12 (27%)
Skin	(17)	(16)
Abscess		1 (6%)
Angiectasis		1 (6%)
Cyst, Squamous Cyst Epithelial Inclusion	5 (29%)	10 (63%)
Edema	1 (6%)	
Fibrosis Foreign Body		
Hemorrhage		1 (6%)
Hyperkeratosis Inflammation, Suppurative		1 (6%)
Inflammation, Granulomatous	1 (6%)	2 (13%)
Inflammation, Chronic Active Necrosis		
Ulcer		1 (6%)
Epithelium, Hyperplasia	3 (18%)	
Epithelium, Foot, Hyperplasia	6 (35%)	2 (13%)
Foot, Edema	6 (35%)	1 (6%)
Foot, Fibrosis	6 (35%)	2 (13%)
Foot, Hemorrhage Foot, Inflammation, Chronic Active	6 (35%)	2 (13%)
Foot, Necrosis	6 (35%)	2 (13%)
Foot, Ulcer	6 (35%)	2 (13%)
Sebaceous Gland, Hyperplasia		

MUSCULOSKELETAL SYSTEM

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P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

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Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Bone	(2)	(1)
Humerus, Abscess		
Humerus, Osteopetrosis		
Joint, Fibrosis		
Joint, Hyperostosis		
Joint, Inflammation, Chronic Active		
Mandible, Osteopetrosis		
Metatarsal, Hyperostosis		
Rib, Hyperostosis	1 (50%)	
Tarsal, Hyperostosis		1 (100%)
Tibia, Hyperostosis		
Vertebra, Fibrous Osteodystrophy		
Bone, Femur	(50)	(46)
Fibrous Osteodystrophy	5 (10%)	2 (4%)
Osteopetrosis	2 (4%)	
Skeletal Muscle	(2)	(3)
Degeneration		
Fibrosis		1 (33%)
Hemorrhage		1 (33%)
Inflammation, Chronic Active		1 (33%)
Necrosis		1 (33%)

NERVOUS SYSTEM

Brain, Brain Stem	(50)	(46)
Compression	6 (12%)	8 (17%)
Cyst		2 (4%)
Gliosis	1 (2%)	
Hemorrhage	1 (2%)	
Necrosis		
Pigmentation		
Thrombosis		
Vacuolization Cytoplasmic	1 (2%)	
Brain, Cerebellum	(50)	(46)
Compression		

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Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Gliosis		
Hemorrhage		
Necrosis		
Polyarteritis		
Brain, Cerebrum	(50)	(46)
Compression		
Gliosis	2 (4%)	
Hemorrhage	1 (2%)	
Mineralization		
Necrosis	2 (4%)	
Pigmentation	1 (2%)	
Polyarteritis		
Thrombosis	1 (2%)	
Ventricle, Dilatation	3 (6%)	2 (4%)
Nerve Trigeminal	(8)	(3)
Axon, Degeneration	7 (88%)	1 (33%)
Peripheral Nerve, Sciatic	(8)	(3)
Axon, Degeneration		
Peripheral Nerve, Tibial	(8)	(3)
Axon, Degeneration		
Spinal Cord, Cervical	(8)	(3)
Hemorrhage		
Axon, Degeneration	2 (25%)	
Spinal Cord, Lumbar	(8)	(3)
Axon, Degeneration	6 (75%)	2 (67%)
Spinal Cord, Thoracic	(8)	(3)
Hemorrhage		1 (33%)
Axon, Degeneration	2 (25%)	

RESPIRATORY SYSTEM

Lung	(41)	(38)
Abscess		
Congestion	1 (2%)	
Fibrosis	1 (2%)	

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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
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Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Foreign Body		2 (5%)
Hemorrhage	1 (2%)	
Infiltration Cellular, Histiocyte	14 (34%)	5 (13%)
Infiltration Cellular, Lymphocyte		
Inflammation, Suppurative		
Inflammation, Granulomatous	1 (2%)	3 (8%)
Inflammation, Chronic		1 (3%)
Inflammation, Chronic Active	1 (2%)	
Metaplasia, Osseous		1 (3%)
Mineralization		
Necrosis		
Thrombosis		
Alveolar Epithelium, Hyperplasia	1 (2%)	
Bronchiole, Epithelium, Hyperplasia		
Goblet Cell, Metaplasia		
Pleura, Fibrosis		
Pleura, Foreign Body		
Pleura, Inflammation, Suppurative		
Pleura, Necrosis		
Subpleura, Cyst		
Nose	(34)	(37)
Autolysis		
Cyst Epithelial Inclusion		1 (3%)
Exudate	1 (3%)	
Fibrosis		
Fibrous Osteodystrophy	5 (15%)	2 (5%)
Foreign Body	2 (6%)	2 (5%)
Hemorrhage		
Inflammation, Suppurative	7 (21%)	5 (14%)
Inflammation, Chronic Active	4 (12%)	1 (3%)
Osteopetrosis		
Epithelium, Upper Molar, Hyperplasia		
Olfactory Epithelium, Accumulation, Hyaline Droplet	15 (44%)	13 (35%)
Olfactory Epithelium, Hyperplasia		
Posterior To Upper Incisor, Malformation		

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P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

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Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Respiratory Epithelium, Accumulation, Hyaline Droplet	6 (18%)	5 (14%)
Respiratory Epithelium, Hyperplasia		
Respiratory Epithelium, Hyperplasia, Goblet Cell	5 (15%)	4 (11%)
Respiratory Epithelium, Ulcer	1 (3%)	1 (3%)
Transitional Epithelium, Accumulation, Hyaline Droplet		1 (3%)
Upper Molar, Fibrosis		1 (3%)
Upper Molar, Foreign Body		
Upper Molar, Inflammation, Suppurative		
Upper Molar, Keratin Cyst		
Upper Molar, Necrosis		
Trachea	(33)	(33)
Inflammation, Chronic Active		
Epithelium, Hyperplasia		
Peritracheal Tissue, Hemorrhage		
Peritracheal Tissue, Inflammation, Chronic Active		

SPECIAL SENSES SYSTEM

Ear	(0)	(0)
Eye	(1)	(1)
Cataract		
Fibrosis		
Inflammation, Chronic Active		
Mineralization		
Retinal Detachment		
Rupture		
Anterior Chamber, Edema		
Cornea, Bacterium		
Cornea, Edema		
Cornea, Inflammation, Suppurative		
Cornea, Inflammation, Chronic Active	1 (100%)	
Cornea, Mineralization	1 (100%)	

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Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Cornea, Necrosis		
Cornea, Ulcer		
Retina, Autolysis		
Retina, Degeneration		1 (100%)
Lacrimal Gland	(0)	(0)
Zymbal's Gland	(0)	(1)
Cyst, Squamous		1 (100%)
Fibrosis		
Inflammation, Suppurative		
Duct, Dilatation		

URINARY SYSTEM

Kidney	(50)	(45)
Accumulation, Hyaline Droplet	1 (2%)	2 (4%)
Casts Protein	1 (2%)	1 (2%)
Fibrosis		1 (2%)
Hemorrhage		1 (2%)
Infarct		
Infiltration Cellular, Polymorphonuclear	8 (16%)	5 (11%)
Inflammation, Chronic Active		
Mineralization	6 (12%)	3 (7%)
Necrosis		1 (2%)
Nephropathy	46 (92%)	39 (87%)
Pigmentation	1 (2%)	
Polyarteritis	2 (4%)	1 (2%)
Polycystic Kidney	2 (4%)	
Thrombosis		
Vacuolization Cytoplasmic		
Artery, Intima, Proliferation		
Cortex, Cyst	14 (28%)	10 (22%)
Pelvis, Dilatation		3 (7%)
Pelvis, Infiltration Cellular, Lymphocyte	1 (2%)	
Pelvis, Inflammation, Chronic Active		
Renal Tubule, Cyst	27 (54%)	18 (40%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS MALE	F1 2500.StDose M	F1 25000StDose M
Renal Tubule, Dilatation		1 (2%)
Renal Tubule, Hyperplasia, Atypical		1 (2%)
Transitional Epithelium, Hyperplasia	20 (40%)	10 (22%)
Urinary Bladder	(3)	(4)
Calculus Micro Observation Only		
Fibrosis		
Hemorrhage		2 (50%)
Inflammation, Chronic Active		1 (25%)
Necrosis		
Lumen, Dilatation	3 (100%)	4 (100%)

*** END OF MALE ***

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 Veh. Ctrl F

F1 2.5 BPA F

F1 25.0 BPA F

F1 250.0BPA F

F1 2500.BPA F

F1 25000BPA F

Disposition Summary

	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Animals Initially In Study	50	48	46	49	50	46
Early Deaths						
Moribund Sacrifice	25	22	28	23	28	27
Natural Death	3	1	1	5	5	1
Survivors						
Moribund Sacrifice	3	6	3	8	5	8
Natural Death	3				2	2
Terminal Sacrifice	16	19	14	13	10	8
Animals Examined Microscopically	50	48	46	49	50	46

ALIMENTARY SYSTEM

	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Esophagus	(34)	(29)	(32)	(36)	(40)	(38)
Dilatation						
Ulcer						
Periesophageal Tissue, Foreign Body						
Periesophageal Tissue, Inflammation, Granulomatous						
Intestine Large, Cecum	(1)	(0)	(1)	(0)	(0)	(0)
Fibrosis			1 (100%)			
Inflammation, Chronic Active			1 (100%)			
Necrosis			1 (100%)			
Perforation			1 (100%)			
Intestine Large, Colon	(31)	(30)	(31)	(32)	(34)	(38)
Dilatation		1 (3%)				
Intestine Small, Duodenum	(0)	(0)	(0)	(0)	(0)	(0)
Fibrosis						
Intestine Small, Ileum	(29)	(29)	(31)	(32)	(32)	(37)
Diverticulum						
Foreign Body			1 (3%)			
Inflammation, Chronic Active			1 (3%)			
Epithelium, Hyperplasia			1 (3%)			
Intestine Small, Jejunum	(3)	(0)	(2)	(1)	(1)	(0)
Dilatation						

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Diverticulum					1 (100%)	
Fibrosis						
Inflammation, Chronic Active			1 (50%)			
Metaplasia, Osseous						
Necrosis			1 (50%)			
Ulcer						
Epithelium, Hyperplasia			1 (50%)			
Liver	(50)	(48)	(46)	(49)	(50)	(46)
Angiectasis	3 (6%)	4 (8%)	5 (11%)	5 (10%)	3 (6%)	8 (17%)
Basophilic Focus	18 (36%)	22 (46%)	15 (33%)	18 (37%)	19 (38%)	18 (39%)
Basophilic Focus, Multiple		1 (2%)				
Cholangiofibrosis		1 (2%)				
Clear Cell Focus	9 (18%)	9 (19%)	12 (26%)	10 (20%)	6 (12%)	7 (15%)
Cyst						
Deformity						
Degeneration, Cystic	4 (8%)	3 (6%)	6 (13%)	3 (6%)	5 (10%)	1 (2%)
Eosinophilic Focus	1 (2%)				1 (2%)	
Fatty Change	19 (38%)	9 (19%)	15 (33%)	15 (31%)	8 (16%)	12 (26%)
Fibrosis	1 (2%)				1 (2%)	
Hematopoietic Cell Proliferation	2 (4%)	2 (4%)	3 (7%)	2 (4%)	1 (2%)	1 (2%)
Hemorrhage	1 (2%)	2 (4%)		1 (2%)	1 (2%)	
Hepatodiaphragmatic Nodule	6 (12%)	4 (8%)	6 (13%)	2 (4%)	5 (10%)	2 (4%)
Infiltration Cellular, Mononuclear Cell	37 (74%)	28 (58%)	35 (76%)	29 (59%)	26 (52%)	24 (52%)
Inflammation, Chronic					1 (2%)	
Inflammation, Chronic Active		2 (4%)	2 (4%)	1 (2%)	2 (4%)	1 (2%)
Mineralization	1 (2%)		1 (2%)	2 (4%)	1 (2%)	1 (2%)
Mitotic Alteration		1 (2%)		1 (2%)		
Mixed Cell Focus		2 (4%)	1 (2%)	2 (4%)		2 (4%)
Pigmentation	1 (2%)		1 (2%)		1 (2%)	
Tension Lipidosis	5 (10%)	7 (15%)	8 (17%)	6 (12%)	4 (8%)	10 (22%)
Vacuolization Cytoplasmic	11 (22%)	16 (33%)	14 (30%)	13 (27%)	15 (30%)	15 (33%)
Bile Duct, Hyperplasia	16 (32%)	18 (38%)	16 (35%)	18 (37%)	11 (22%)	9 (20%)
Biliary Tract, Cyst					1 (2%)	
Biliary Tract, Cyst, Multiple						
Biliary Tract, Fibrosis	6 (12%)	10 (21%)	4 (9%)	6 (12%)	5 (10%)	5 (11%)
Capsule, Fibrosis						1 (2%)

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Experiment Number: 10034 - 04

Test Type: CHRONIC

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Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Capsule, Hemorrhage						
Capsule, Inflammation, Chronic Active						1 (2%)
Hepatocyte, Degeneration						
Hepatocyte, Necrosis	1 (2%)	2 (4%)	3 (7%)	2 (4%)	4 (8%)	3 (7%)
Oval Cell, Hyperplasia	2 (4%)		1 (2%)	3 (6%)	1 (2%)	2 (4%)
Mesentery	(2)	(0)	(3)	(3)	(4)	(3)
Fat, Degeneration, Cystic			1 (33%)			
Fat, Infiltration Cellular, Lymphocyte			1 (33%)			
Fat, Inflammation, Granulomatous						
Fat, Inflammation, Chronic			1 (33%)			
Fat, Necrosis	2 (100%)		2 (67%)	2 (67%)	4 (100%)	2 (67%)
Oral Mucosa	(0)	(0)	(0)	(0)	(0)	(0)
Pancreas	(50)	(48)	(46)	(49)	(49)	(46)
Basophilic Focus	3 (6%)	6 (13%)		1 (2%)	1 (2%)	2 (4%)
Infiltration Cellular, Lymphocyte	35 (70%)	33 (69%)	31 (67%)	28 (57%)	28 (57%)	29 (63%)
Inflammation, Chronic Active	2 (4%)	4 (8%)	4 (9%)	1 (2%)	1 (2%)	3 (7%)
Lipomatosis	6 (12%)	4 (8%)	8 (17%)	6 (12%)	3 (6%)	7 (15%)
Necrosis						
Pigmentation	11 (22%)	11 (23%)	14 (30%)	8 (16%)	3 (6%)	8 (17%)
Polyarteritis						
Acinar Cell, Hyperplasia				1 (2%)		
Acinus, Degeneration	34 (68%)	34 (71%)	35 (76%)	29 (59%)	31 (63%)	36 (78%)
Artery, Fibrosis						
Artery, Inflammation, Chronic Active						
Artery, Mineralization						
Stomach, Forestomach	(34)	(29)	(34)	(36)	(39)	(39)
Cyst Epithelial Inclusion			1 (3%)			
Edema						
Inflammation, Chronic Active				1 (3%)		
Necrosis						
Ulcer				1 (3%)		1 (3%)
Epithelium, Hyperplasia						3 (8%)
Stomach, Glandular	(34)	(29)	(31)	(35)	(36)	(38)
Cyst Epithelial Inclusion						
Diverticulum						
Edema						

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Inflammation, Chronic Active Mineralization				1 (3%)		1 (3%)
Pigmentation	1 (3%)					
Polyarteritis Epithelium, Hyperplasia						1 (3%)
Tongue Ulcer	(0)	(0)	(0)	(0)	(0)	(0)
CARDIOVASCULAR SYSTEM						
Blood Vessel Mineralization	(50)	(48)	(46)	(49)	(50)	(46)
Intima, Inflammation, Chronic Intima, Proliferation				1 (2%)	1 (2%)	1 (2%)
Heart	(50)	(48)	(46)	(49)	(50)	(46)
Cardiomyopathy	35 (70%)	30 (63%)	24 (52%)	35 (71%)	33 (66%)	33 (72%)
Inflammation, Chronic Active Metaplasia, Osseous			1 (2%)		1 (2%)	1 (2%)
Mineralization				1 (2%)		1 (2%)
Polyarteritis						1 (2%)
Thrombosis					2 (4%)	
Myocardium, Necrosis						1 (2%)
ENDOCRINE SYSTEM						
Adrenal Cortex	(50)	(48)	(45)	(49)	(49)	(46)
Accessory Adrenal Cortical Nodule	1 (2%)	1 (2%)		1 (2%)		
Angiectasis	9 (18%)	8 (17%)	6 (13%)	6 (12%)	6 (12%)	9 (20%)
Atrophy						
Cyst						
Degeneration, Cystic	31 (62%)	30 (63%)	27 (60%)	31 (63%)	29 (59%)	31 (67%)
Fibrosis			1 (2%)	1 (2%)		
Hemorrhage						
Hyperplasia	7 (14%)	7 (15%)	2 (4%)	3 (6%)	2 (4%)	5 (11%)
Hypertrophy	5 (10%)	2 (4%)	2 (4%)	3 (6%)	4 (8%)	3 (7%)

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Experiment Number: 10034 - 04

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Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Metaplasia, Osseous				1 (2%)		
Necrosis						
Pigmentation				1 (2%)	1 (2%)	
Vacuolization Cytoplasmic	3 (6%)	6 (13%)	1 (2%)	5 (10%)	2 (4%)	4 (9%)
Capsule, Fibrosis						1 (2%)
Adrenal Medulla	(50)	(48)	(46)	(49)	(49)	(46)
Cyst			1 (2%)			
Degeneration, Cystic						
Hyperplasia	8 (16%)	7 (15%)	3 (7%)	4 (8%)		4 (9%)
Hypertrophy		1 (2%)				
Islets, Pancreatic	(50)	(48)	(46)	(49)	(49)	(46)
Hyperplasia		1 (2%)	2 (4%)			2 (4%)
Parathyroid Gland	(50)	(48)	(45)	(47)	(50)	(45)
Hyperplasia	4 (8%)	6 (13%)	3 (7%)	5 (11%)	3 (6%)	6 (13%)
Pituitary Gland	(50)	(48)	(46)	(49)	(49)	(46)
Angiectasis	10 (20%)	8 (17%)	4 (9%)	9 (18%)	9 (18%)	9 (20%)
Fibrosis						
Hemorrhage					1 (2%)	1 (2%)
Necrosis						
Pigmentation						
Pars Distalis, Cyst	9 (18%)	2 (4%)	7 (15%)	10 (20%)	3 (6%)	2 (4%)
Pars Distalis, Hyperplasia	27 (54%)	22 (46%)	32 (70%)	26 (53%)	29 (59%)	23 (50%)
Pars Distalis, Hypertrophy			1 (2%)	1 (2%)		
Pars Distalis, Vacuolization Cytoplasmic	1 (2%)					
Pars Intermedia, Cyst	1 (2%)		1 (2%)	1 (2%)		
Pars Intermedia, Vacuolization Cytoplasmic						
Rathke's Cleft, Cyst				1 (2%)		2 (4%)
Thyroid Gland	(50)	(48)	(46)	(49)	(50)	(46)
Angiectasis						1 (2%)
Fibrosis		1 (2%)				
Infiltration Cellular, Lymphocyte				2 (4%)		1 (2%)
Inflammation, Chronic Active						
Ultimobranchial Cyst	8 (16%)	2 (4%)	6 (13%)	3 (6%)	4 (8%)	7 (15%)
C-cell, Hyperplasia	22 (44%)	17 (35%)	22 (48%)	18 (37%)	20 (40%)	17 (37%)
Follicular Cell, Cyst						
Follicular Cell, Hyperplasia	1 (2%)	6 (13%)	4 (9%)	3 (6%)	1 (2%)	4 (9%)

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
GENERAL BODY SYSTEM						
Tissue NOS	(0)	(1)	(0)	(1)	(1)	(0)
Metaplasia, Osseous				1 (100%)		
GENITAL SYSTEM						
Clitoral Gland	(7)	(7)	(6)	(7)	(8)	(13)
Atrophy						
Fibrosis					1 (13%)	
Hyperkeratosis	2 (29%)	3 (43%)	2 (33%)	6 (86%)	1 (13%)	3 (23%)
Infiltration Cellular, Plasma Cell						
Inflammation, Suppurative	6 (86%)	4 (57%)	3 (50%)	2 (29%)	5 (63%)	10 (77%)
Inflammation, Chronic Active						1 (8%)
Duct, Dilatation	7 (100%)	5 (71%)	4 (67%)	7 (100%)	7 (88%)	11 (85%)
Fat Pad, Ovarian/parametrial	(1)	(0)	(0)	(1)	(1)	(1)
Necrosis	1 (100%)			1 (100%)	1 (100%)	
Ovary	(50)	(48)	(46)	(49)	(50)	(46)
Angiectasis						
Atrophy	47 (94%)	45 (94%)	44 (96%)	46 (94%)	45 (90%)	46 (100%)
Cyst	4 (8%)	4 (8%)	4 (9%)	9 (18%)	2 (4%)	4 (9%)
Hyperplasia, Sertoliform	4 (8%)	5 (10%)	1 (2%)	5 (10%)	6 (12%)	4 (9%)
Hyperplasia, Tubulostromal						
Infiltration Cellular, Polymorphonuclear						
Pigmentation				1 (2%)		
Polyarteritis		1 (2%)				
Bilateral, Cyst	2 (4%)	2 (4%)				
Bilateral, Follicle, Cyst	1 (2%)		1 (2%)	1 (2%)		1 (2%)
Bursa, Cyst		1 (2%)		1 (2%)	1 (2%)	2 (4%)
Corpus Luteum, Hypertrophy					1 (2%)	
Follicle, Cyst	3 (6%)	3 (6%)	2 (4%)	7 (14%)	6 (12%)	4 (9%)
Granulosa Cell, Hyperplasia		2 (4%)		1 (2%)	1 (2%)	
Interstitial Cell, Hyperplasia						1 (2%)
Rete Ovarii, Hyperplasia						

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Experiment Number: 10034 - 04

Test Type: CHRONIC

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Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Oviduct	(47)	(48)	(46)	(48)	(47)	(46)
Epithelium, Hyperplasia					1 (2%)	
Uterus	(50)	(48)	(45)	(49)	(48)	(46)
Adenomyosis	1 (2%)	1 (2%)				
Atrophy	7 (14%)	8 (17%)	4 (9%)	9 (18%)	4 (8%)	6 (13%)
Cyst	1 (2%)					
Dilatation						
Hemorrhage						
Hyperplasia, Stromal			1 (2%)			
Infiltration Cellular, Polymorphonuclear	1 (2%)					
Inflammation, Suppurative						
Metaplasia, Squamous	2 (4%)	4 (8%)	4 (9%)	1 (2%)	4 (8%)	6 (13%)
Cervix, Cyst, Squamous						
Cervix, Hyperplasia, Stromal						
Endometrial Glands, Hyperplasia	1 (2%)	1 (2%)	2 (4%)		2 (4%)	2 (4%)
Endometrium, Cyst		1 (2%)	1 (2%)	2 (4%)	1 (2%)	2 (4%)
Endometrium, Degeneration						
Endometrium, Hyperplasia	10 (20%)	15 (31%)	12 (27%)	15 (31%)	15 (31%)	12 (26%)
Endometrium, Hyperplasia, Cystic	30 (60%)	20 (42%)	26 (58%)	23 (47%)	22 (46%)	26 (57%)
Lumen, Dilatation	2 (4%)	2 (4%)	3 (7%)	4 (8%)	5 (10%)	6 (13%)
Stroma, Fibrosis						
Vagina	(49)	(48)	(45)	(49)	(50)	(46)
Atrophy	1 (2%)	2 (4%)		2 (4%)	1 (2%)	
Cyst, Squamous			1 (2%)			
Foreign Body		1 (2%)				
Hemorrhage		1 (2%)				
Infiltration Cellular, Polymorphonuclear	7 (14%)	2 (4%)	9 (20%)	3 (6%)	6 (12%)	6 (13%)
Inflammation, Chronic Active		1 (2%)				
Epithelium, Degeneration	1 (2%)	6 (13%)	3 (7%)	2 (4%)	6 (12%)	2 (4%)
Epithelium, Hyperplasia	4 (8%)	5 (10%)	12 (27%)	10 (20%)	11 (22%)	12 (26%)
Epithelium, Mucification	46 (94%)	37 (77%)	34 (76%)	39 (80%)	34 (68%)	40 (87%)
Lumen, Dilatation		2 (4%)				1 (2%)

HEMATOPOIETIC SYSTEM

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Bone Marrow	(50)	(48)	(46)	(49)	(49)	(46)
Hypocellularity	2 (4%)	3 (6%)	1 (2%)	2 (4%)	2 (4%)	6 (13%)
Myeloid Cell, Hyperplasia		2 (4%)	2 (4%)	1 (2%)	3 (6%)	2 (4%)
Lymph Node	(12)	(9)	(6)	(8)	(4)	(6)
Degeneration, Cystic				1 (13%)		
Axillary, Degeneration, Cystic	1 (8%)					
Axillary, Hyperplasia, Lymphoid	1 (8%)		1 (17%)			
Axillary, Infiltration Cellular, Plasma Cell		1 (11%)				
Iliac, Degeneration, Cystic						
Iliac, Hyperplasia, Lymphoid		1 (11%)				
Iliac, Infiltration Cellular, Plasma Cell		1 (11%)				
Inguinal, Infiltration Cellular, Plasma Cell				1 (13%)	1 (25%)	
Lumbar, Degeneration, Cystic	2 (17%)	5 (56%)	1 (17%)	2 (25%)		2 (33%)
Lumbar, Hyperplasia, Lymphoid	6 (50%)	1 (11%)	1 (17%)	3 (38%)		5 (83%)
Lumbar, Infiltration Cellular, Plasma Cell	5 (42%)	4 (44%)	3 (50%)	3 (38%)	1 (25%)	4 (67%)
Mediastinal, Degeneration, Cystic						
Mediastinal, Hemorrhage	1 (8%)					
Mediastinal, Hyperplasia, Lymphoid						
Mediastinal, Pigmentation	1 (8%)					
Pancreatic, Degeneration, Cystic				1 (13%)		
Pancreatic, Hyperplasia, Lymphoid				1 (13%)		
Pancreatic, Infiltration Cellular, Histiocyte						
Popliteal, Hyperplasia, Lymphoid		1 (11%)	1 (17%)			
Popliteal, Infiltration Cellular, Plasma Cell		1 (11%)	1 (17%)		1 (25%)	
Renal, Degeneration, Cystic	1 (8%)	2 (22%)		1 (13%)		
Renal, Hemorrhage	1 (8%)					
Renal, Hyperplasia, Lymphoid	1 (8%)					
Renal, Infiltration Cellular, Plasma Cell	1 (8%)		1 (17%)	1 (13%)		1 (17%)
Renal, Pigmentation	1 (8%)					
Lymph Node, Mandibular	(5)	(0)	(4)	(2)	(4)	(6)
Degeneration, Cystic	1 (20%)		1 (25%)	2 (100%)	1 (25%)	1 (17%)
Hemorrhage					1 (25%)	
Hyperplasia, Lymphoid	3 (60%)				2 (50%)	3 (50%)
Infiltration Cellular, Plasma Cell	3 (60%)		3 (75%)	1 (50%)	3 (75%)	4 (67%)
Necrosis						1 (17%)
Lymph Node, Mesenteric	(2)	(1)	(2)	(0)	(0)	(2)

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Degeneration, Cystic			1 (50%)			1 (50%)
Hemorrhage						1 (50%)
Histiocytosis			1 (50%)			
Hyperplasia, Lymphoid						
Infiltration Cellular, Plasma Cell			1 (50%)			
Spleen	(50)	(48)	(46)	(49)	(50)	(46)
Bacterium		1 (2%)				
Fibrosis		1 (2%)				
Hematopoietic Cell Proliferation	28 (56%)	27 (56%)	29 (63%)	30 (61%)	30 (60%)	23 (50%)
Hyperplasia, Lymphoid		1 (2%)	2 (4%)	2 (4%)		2 (4%)
Infiltration Cellular, Polymorphonuclear		1 (2%)				
Necrosis	1 (2%)	1 (2%)	1 (2%)			
Pigmentation	32 (64%)	27 (56%)	28 (61%)	34 (69%)	35 (70%)	30 (65%)
Polyarteritis		1 (2%)				
Capsule, Cyst						
Capsule, Fibrosis					1 (2%)	
Thymus	(50)	(48)	(44)	(49)	(49)	(45)
Atrophy	47 (94%)	47 (98%)	43 (98%)	47 (96%)	47 (96%)	44 (98%)
Cyst	2 (4%)			2 (4%)	1 (2%)	2 (4%)
Hemorrhage	1 (2%)	1 (2%)			1 (2%)	
Necrosis						
Polyarteritis						
Epithelial Cell, Hyperplasia				1 (2%)	1 (2%)	

INTEGUMENTARY SYSTEM

Mammary Gland	(50)	(48)	(46)	(49)	(50)	(46)
Atypical Focus	2 (4%)	7 (15%)	1 (2%)	5 (10%)	3 (6%)	3 (7%)
Fibrosis						
Galactocele						
Hyperplasia, Lobular	43 (86%)	41 (85%)	30 (65%)	38 (78%)	40 (80%)	37 (80%)
Infiltration Cellular, Polymorphonuclear					1 (2%)	
Inflammation, Chronic				1 (2%)		
Metaplasia, Osseous						
Mineralization						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Alveolus, Dilatation	9 (18%)	14 (29%)	5 (11%)	7 (14%)	7 (14%)	11 (24%)
Duct, Dilatation	15 (30%)	16 (33%)	7 (15%)	9 (18%)	9 (18%)	14 (30%)
Duct, Hyperplasia					1 (2%)	
Skin	(17)	(12)	(14)	(12)	(13)	(17)
Cyst Epithelial Inclusion				2 (17%)	1 (8%)	
Hemorrhage					1 (8%)	
Inflammation, Suppurative		1 (8%)		1 (8%)		
Inflammation, Granulomatous				1 (8%)		
Inflammation, Chronic Active		1 (8%)				1 (6%)
Metaplasia, Osseous						
Ulcer		2 (17%)				1 (6%)
Epithelium, Hyperplasia		1 (8%)		1 (8%)		
Epithelium, Foot, Hyperplasia	15 (88%)	10 (83%)	12 (86%)	9 (75%)	11 (85%)	15 (88%)
Foot, Bacterium	1 (6%)		2 (14%)		1 (8%)	1 (6%)
Foot, Cyst Epithelial Inclusion						
Foot, Edema	10 (59%)	8 (67%)	8 (57%)	6 (50%)	7 (54%)	11 (65%)
Foot, Fibrosis	15 (88%)	11 (92%)	12 (86%)	9 (75%)	11 (85%)	15 (88%)
Foot, Hyperkeratosis						1 (6%)
Foot, Inflammation, Chronic Active	15 (88%)	11 (92%)	12 (86%)	9 (75%)	11 (85%)	16 (94%)
Foot, Necrosis	15 (88%)	10 (83%)	10 (71%)	6 (50%)	7 (54%)	14 (82%)
Foot, Ulcer	15 (88%)	10 (83%)	11 (79%)	8 (67%)	9 (69%)	15 (88%)
Subcutaneous Tissue, Fibrosis						

MUSCULOSKELETAL SYSTEM

Bone	(1)	(0)	(0)	(0)	(1)	(0)
Cranium, Fracture					1 (100%)	
Joint, Edema	1 (100%)					
Tarsal, Fibrosis						
Tarsal, Hyperostosis						
Tarsal, Inflammation, Chronic Active						
Tarsal, Necrosis						
Tarsal, Ulcer						
Bone, Femur	(50)	(48)	(46)	(49)	(50)	(46)
Fibrous Osteodystrophy						1 (2%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Osteopetrosis						
Skeletal Muscle	(1)	(1)	(2)	(1)	(1)	(1)
Diaphragm, Hernia			1 (50%)			
NERVOUS SYSTEM						
Brain, Brain Stem	(50)	(48)	(46)	(49)	(50)	(46)
Compression	14 (28%)	13 (27%)	7 (15%)	14 (29%)	13 (26%)	17 (37%)
Gliosis						
Hemorrhage	1 (2%)	1 (2%)		1 (2%)		
Necrosis						
Polyarteritis		1 (2%)				
Brain, Cerebellum	(50)	(48)	(46)	(49)	(50)	(46)
Hemorrhage		1 (2%)				
Brain, Cerebrum	(50)	(48)	(46)	(49)	(50)	(46)
Cyst			1 (2%)			
Hemorrhage		1 (2%)		1 (2%)		
Ventricle, Dilatation	7 (14%)	4 (8%)	2 (4%)	4 (8%)	6 (12%)	6 (13%)
Nerve Trigeminal	(7)	(12)	(2)	(12)	(11)	(6)
Axon, Degeneration	4 (57%)	7 (58%)	2 (100%)	10 (83%)	4 (36%)	5 (83%)
Peripheral Nerve, Sciatic	(7)	(12)	(2)	(12)	(11)	(6)
Peripheral Nerve, Tibial	(7)	(12)	(2)	(12)	(11)	(6)
Axon, Degeneration		2 (17%)				
Spinal Cord, Cervical	(7)	(11)	(2)	(12)	(10)	(6)
Mineralization		1 (9%)				
Axon, Degeneration	2 (29%)			1 (8%)		1 (17%)
Spinal Cord, Lumbar	(7)	(12)	(2)	(12)	(10)	(6)
Axon, Degeneration	4 (57%)	8 (67%)	1 (50%)	5 (42%)	4 (40%)	4 (67%)
Spinal Cord, Thoracic	(7)	(11)	(2)	(12)	(10)	(6)
Mineralization		1 (9%)				
Axon, Degeneration	3 (43%)			1 (8%)		1 (17%)

RESPIRATORY SYSTEM

Lung	(38)	(32)	(34)	(39)	(44)	(42)
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a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Congestion					2 (5%)	
Fibrosis						
Foreign Body			2 (6%)			3 (7%)
Hemorrhage	1 (3%)	1 (3%)	1 (3%)		1 (2%)	1 (2%)
Infiltration Cellular, Histiocyte	8 (21%)	3 (9%)	8 (24%)	12 (31%)	10 (23%)	13 (31%)
Infiltration Cellular, Lymphocyte						
Inflammation, Suppurative						
Inflammation, Granulomatous		1 (3%)	2 (6%)			2 (5%)
Inflammation, Chronic		1 (3%)	1 (3%)			1 (2%)
Inflammation, Chronic Active				1 (3%)		1 (2%)
Metaplasia, Osseous				1 (3%)	1 (2%)	
Mineralization						1 (2%)
Necrosis			1 (3%)			
Pigmentation					1 (2%)	
Alveolar Epithelium, Hyperplasia	4 (11%)	2 (6%)	1 (3%)	1 (3%)	3 (7%)	
Bronchiole, Epithelium, Hyperplasia						
Mediastinum, Foreign Body						
Mediastinum, Inflammation, Chronic						
Mediastinum, Necrosis						
Nose	(34)	(29)	(32)	(36)	(38)	(38)
Autolysis						
Fibrosis						
Fibrous Osteodystrophy						2 (5%)
Foreign Body				5 (14%)		
Hemorrhage		1 (3%)				
Inflammation, Suppurative	1 (3%)	1 (3%)	1 (3%)	5 (14%)		
Inflammation, Chronic Active				1 (3%)	1 (3%)	
Osteopetrosis						
Olfactory Epithelium, Accumulation, Hyaline Droplet	8 (24%)	5 (17%)	6 (19%)	12 (33%)	7 (18%)	11 (29%)
Respiratory Epithelium, Accumulation, Hyaline Droplet	2 (6%)			2 (6%)		3 (8%)
Respiratory Epithelium, Hyperplasia						1 (3%)
Respiratory Epithelium, Hyperplasia, Goblet Cell	1 (3%)		1 (3%)	2 (6%)	1 (3%)	3 (8%)
Respiratory Epithelium, Ulcer						

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Transitional Epithelium, Accumulation, Hyaline Droplet	2 (6%)				1 (3%)	
Upper Molar, Inflammation, Chronic Active						
Trachea Infiltration Cellular, Lymphocyte Inflammation, Chronic Active	(32)	(29)	(32)	(34)	(37)	(38)
SPECIAL SENSES SYSTEM						
Ear	(0)	(0)	(0)	(1)	(0)	(0)
Eye	(1)	(0)	(1)	(0)	(2)	(0)
Cataract			1 (100%)		2 (100%)	
Anterior Chamber, Edema						
Cornea, Edema	1 (100%)					
Retina, Degeneration	1 (100%)		1 (100%)		2 (100%)	
Zymbal's Gland	(0)	(1)	(0)	(0)	(2)	(2)
Abscess						
Inflammation, Suppurative						1 (50%)
Thrombosis						1 (50%)
Duct, Dilatation						1 (50%)
URINARY SYSTEM						
Kidney	(50)	(48)	(46)	(49)	(50)	(46)
Accumulation, Hyaline Droplet	1 (2%)		1 (2%)			1 (2%)
Angiectasis						
Casts Protein	8 (16%)	4 (8%)	3 (7%)	5 (10%)	6 (12%)	6 (13%)
Cyst						
Fibrosis	1 (2%)					
Infarct						
Infiltration Cellular, Lymphocyte						
Infiltration Cellular, Mononuclear Cell						
Infiltration Cellular, Polymorphonuclear		1 (2%)		1 (2%)		
Mineralization	30 (60%)	23 (48%)	25 (54%)	25 (51%)	24 (48%)	26 (57%)
Nephropathy	19 (38%)	28 (58%)	21 (46%)	21 (43%)	21 (42%)	25 (54%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

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P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 Veh. Ctrl F	F1 2.5 BPA F	F1 25.0 BPA F	F1 250.0BPA F	F1 2500.BPA F	F1 25000BPA F
Polyarteritis		2 (4%)				1 (2%)
Polycystic Kidney						
Capsule, Fibrosis						1 (2%)
Capsule, Inflammation, Chronic Active						1 (2%)
Cortex, Cyst	5 (10%)	8 (17%)	5 (11%)	7 (14%)	10 (20%)	9 (20%)
Pelvis, Dilatation						
Renal Tubule, Cyst	9 (18%)	8 (17%)	12 (26%)	15 (31%)	12 (24%)	6 (13%)
Renal Tubule, Dilatation						
Renal Tubule, Necrosis	1 (2%)					
Renal Tubule, Vacuolization Cytoplasmic				1 (2%)		
Transitional Epithelium, Hyperplasia	12 (24%)	9 (19%)	7 (15%)	8 (16%)	9 (18%)	9 (20%)
Urinary Bladder	(0)	(1)	(0)	(2)	(0)	(1)
Congestion						
Edema						
Hemorrhage						
Lumen, Dilatation		1 (100%)		2 (100%)		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
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Disposition Summary

Animals Initially In Study	26	26	50	50	48	50
Early Deaths						
Moribund Sacrifice	17	16	29	29	27	26
Natural Death	1	4	3	4	3	2
Survivors						
Moribund Sacrifice	1	2	7	3	5	9
Natural Death				2		
Terminal Sacrifice	7	4	11	12	13	13
Animals Examined Microscopically	26	26	50	50	48	50

ALIMENTARY SYSTEM

Esophagus	(19)	(22)	(38)	(38)	(35)	(37)
Dilatation						
Ulcer						
Periesophageal Tissue, Foreign Body						
Periesophageal Tissue, Inflammation, Granulomatous						
Intestine Large, Cecum	(0)	(0)	(0)	(0)	(0)	(0)
Fibrosis						
Inflammation, Chronic Active						
Necrosis						
Perforation						
Intestine Large, Colon	(19)	(21)	(38)	(34)	(33)	(35)
Dilatation						
Intestine Small, Duodenum	(0)	(1)	(0)	(0)	(0)	(0)
Fibrosis		1 (100%)				
Intestine Small, Ileum	(19)	(18)	(36)	(34)	(31)	(35)
Diverticulum						
Foreign Body						
Inflammation, Chronic Active						
Epithelium, Hyperplasia						
Intestine Small, Jejunum	(0)	(2)	(1)	(2)	(0)	(0)
Dilatation		1 (50%)				

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Experiment Number: 10034 - 04

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Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Diverticulum						
Fibrosis		1 (50%)				
Inflammation, Chronic Active		1 (50%)				
Metaplasia, Osseous		1 (50%)				
Necrosis						
Ulcer				1 (50%)		
Epithelium, Hyperplasia		1 (50%)				
Liver	(26)	(26)	(49)	(50)	(48)	(50)
Angiectasis	1 (4%)		3 (6%)	6 (12%)	1 (2%)	5 (10%)
Basophilic Focus	12 (46%)	14 (54%)	22 (45%)	26 (52%)	25 (52%)	28 (56%)
Basophilic Focus, Multiple						
Cholangiofibrosis						
Clear Cell Focus	2 (8%)	1 (4%)	9 (18%)	10 (20%)	9 (19%)	7 (14%)
Cyst			1 (2%)	1 (2%)		
Deformity		1 (4%)				
Degeneration, Cystic	4 (15%)	2 (8%)	2 (4%)	1 (2%)	6 (13%)	5 (10%)
Eosinophilic Focus			1 (2%)	1 (2%)		
Fatty Change	5 (19%)	3 (12%)	19 (39%)	17 (34%)	17 (35%)	18 (36%)
Fibrosis						
Hematopoietic Cell Proliferation	2 (8%)		3 (6%)	1 (2%)	3 (6%)	2 (4%)
Hemorrhage					1 (2%)	1 (2%)
Hepatodiaphragmatic Nodule			2 (4%)	5 (10%)	1 (2%)	6 (12%)
Infiltration Cellular, Mononuclear Cell	17 (65%)	10 (38%)	29 (59%)	28 (56%)	33 (69%)	25 (50%)
Inflammation, Chronic						
Inflammation, Chronic Active			2 (4%)	3 (6%)	1 (2%)	3 (6%)
Mineralization		1 (4%)	1 (2%)	4 (8%)		1 (2%)
Mitotic Alteration	1 (4%)					
Mixed Cell Focus	1 (4%)	1 (4%)	1 (2%)	2 (4%)	1 (2%)	1 (2%)
Pigmentation						
Tension Lipidosis	2 (8%)	7 (27%)	4 (8%)	13 (26%)	5 (10%)	13 (26%)
Vacuolization Cytoplasmic	11 (42%)	7 (27%)	12 (24%)	19 (38%)	15 (31%)	9 (18%)
Bile Duct, Hyperplasia	8 (31%)	1 (4%)	20 (41%)	11 (22%)	18 (38%)	19 (38%)
Biliary Tract, Cyst	2 (8%)		3 (6%)	1 (2%)		1 (2%)
Biliary Tract, Cyst, Multiple			1 (2%)			
Biliary Tract, Fibrosis	3 (12%)		7 (14%)	6 (12%)	8 (17%)	7 (14%)
Capsule, Fibrosis		1 (4%)				

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Capsule, Hemorrhage						
Capsule, Inflammation, Chronic Active						
Hepatocyte, Degeneration			1 (2%)			
Hepatocyte, Necrosis	1 (4%)		1 (2%)	3 (6%)	1 (2%)	3 (6%)
Oval Cell, Hyperplasia	1 (4%)		1 (2%)	1 (2%)		1 (2%)
Mesentery	(2)	(1)	(2)	(3)	(1)	(2)
Fat, Degeneration, Cystic						
Fat, Infiltration Cellular, Lymphocyte						
Fat, Inflammation, Granulomatous		1 (100%)				
Fat, Inflammation, Chronic						
Fat, Necrosis	1 (50%)	1 (100%)	2 (100%)	3 (100%)		2 (100%)
Oral Mucosa	(0)	(0)	(1)	(0)	(1)	(0)
Pancreas	(26)	(26)	(49)	(49)	(47)	(49)
Basophilic Focus	3 (12%)		2 (4%)	2 (4%)		
Infiltration Cellular, Lymphocyte	18 (69%)	13 (50%)	32 (65%)	32 (65%)	27 (57%)	28 (57%)
Inflammation, Chronic Active		1 (4%)	4 (8%)	1 (2%)	1 (2%)	1 (2%)
Lipomatosis	1 (4%)		3 (6%)	6 (12%)	7 (15%)	4 (8%)
Necrosis						
Pigmentation	4 (15%)	5 (19%)	15 (31%)	13 (27%)	6 (13%)	8 (16%)
Polyarteritis			1 (2%)			
Acinar Cell, Hyperplasia		2 (8%)				
Acinus, Degeneration	18 (69%)	16 (62%)	36 (73%)	34 (69%)	34 (72%)	35 (71%)
Artery, Fibrosis			1 (2%)			
Artery, Inflammation, Chronic Active			1 (2%)			
Artery, Mineralization			1 (2%)			
Stomach, Forestomach	(19)	(22)	(38)	(38)	(35)	(37)
Cyst Epithelial Inclusion						
Edema						
Inflammation, Chronic Active						
Necrosis						
Ulcer						
Epithelium, Hyperplasia				1 (3%)		
Stomach, Glandular	(19)	(21)	(38)	(36)	(33)	(37)
Cyst Epithelial Inclusion				1 (3%)		
Diverticulum						
Edema	1 (5%)					

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Inflammation, Chronic Active Mineralization	1 (5%)		1 (3%)			1 (3%)
Pigmentation						1 (3%)
Polyarteritis Epithelium, Hyperplasia						1 (3%)
Tongue	(0)	(1)	(0)	(0)	(0)	(0)
Ulcer		1 (100%)				
CARDIOVASCULAR SYSTEM						
Blood Vessel	(26)	(26)	(50)	(50)	(48)	(50)
Mineralization			1 (2%)			
Intima, Inflammation, Chronic Intima, Proliferation						
Heart	(26)	(26)	(50)	(50)	(48)	(50)
Cardiomyopathy	19 (73%)	22 (85%)	32 (64%)	37 (74%)	38 (79%)	37 (74%)
Inflammation, Chronic Active Metaplasia, Osseous						
Mineralization			2 (4%)			1 (2%)
Polyarteritis					1 (2%)	
Thrombosis						
Myocardium, Necrosis						
ENDOCRINE SYSTEM						
Adrenal Cortex	(26)	(26)	(49)	(49)	(48)	(50)
Accessory Adrenal Cortical Nodule			1 (2%)			
Angiectasis	3 (12%)	9 (35%)	6 (12%)	10 (20%)	8 (17%)	2 (4%)
Atrophy						
Cyst			1 (2%)			
Degeneration, Cystic	13 (50%)	22 (85%)	27 (55%)	28 (57%)	32 (67%)	32 (64%)
Fibrosis		1 (4%)				
Hemorrhage		1 (4%)	1 (2%)		1 (2%)	
Hyperplasia	4 (15%)	1 (4%)	3 (6%)	5 (10%)	4 (8%)	7 (14%)
Hypertrophy	1 (4%)	2 (8%)	1 (2%)		1 (2%)	2 (4%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Metaplasia, Osseous		1 (4%)				1 (2%)
Necrosis	1 (4%)					
Pigmentation		2 (8%)			1 (2%)	1 (2%)
Vacuolization Cytoplasmic	3 (12%)	1 (4%)	4 (8%)	3 (6%)	3 (6%)	6 (12%)
Capsule, Fibrosis						
Adrenal Medulla	(26)	(26)	(49)	(50)	(48)	(48)
Cyst						
Degeneration, Cystic						
Hyperplasia	2 (8%)	8 (31%)	7 (14%)	5 (10%)	4 (8%)	8 (17%)
Hypertrophy						
Islets, Pancreatic	(26)	(26)	(49)	(50)	(48)	(49)
Hyperplasia			1 (2%)		1 (2%)	1 (2%)
Parathyroid Gland	(26)	(26)	(45)	(49)	(47)	(47)
Hyperplasia	3 (12%)	2 (8%)	5 (11%)	3 (6%)	8 (17%)	7 (15%)
Pituitary Gland	(26)	(26)	(49)	(50)	(48)	(50)
Angiectasis	5 (19%)	17 (65%)	12 (24%)	11 (22%)	8 (17%)	12 (24%)
Fibrosis						
Hemorrhage		3 (12%)		2 (4%)		1 (2%)
Necrosis						1 (2%)
Pigmentation				1 (2%)	1 (2%)	
Pars Distalis, Cyst	3 (12%)	2 (8%)	4 (8%)	6 (12%)	10 (21%)	3 (6%)
Pars Distalis, Hyperplasia	16 (62%)	6 (23%)	25 (51%)	32 (64%)	34 (71%)	26 (52%)
Pars Distalis, Hypertrophy				2 (4%)		3 (6%)
Pars Distalis, Vacuolization Cytoplasmic						
Pars Intermedia, Cyst						2 (4%)
Pars Intermedia, Vacuolization Cytoplasmic						
Rathke's Cleft, Cyst						
Thyroid Gland	(26)	(25)	(48)	(49)	(45)	(48)
Angiectasis						
Fibrosis						
Infiltration Cellular, Lymphocyte						
Inflammation, Chronic Active						1 (2%)
Ultimobranchial Cyst	5 (19%)	8 (32%)	2 (4%)	7 (14%)	2 (4%)	9 (19%)
C-cell, Hyperplasia	7 (27%)	9 (36%)	26 (54%)	29 (59%)	17 (38%)	23 (48%)
Follicular Cell, Cyst						
Follicular Cell, Hyperplasia	4 (15%)		4 (8%)	4 (8%)	7 (16%)	6 (13%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
GENERAL BODY SYSTEM						
Tissue NOS	(2)	(0)	(1)	(0)	(0)	(0)
Metaplasia, Osseous						
GENITAL SYSTEM						
Clitoral Gland	(2)	(6)	(6)	(6)	(6)	(8)
Atrophy			1 (17%)			
Fibrosis						
Hyperkeratosis	1 (50%)		2 (33%)	1 (17%)	3 (50%)	5 (63%)
Infiltration Cellular, Plasma Cell						1 (13%)
Inflammation, Suppurative	1 (50%)	4 (67%)	5 (83%)	3 (50%)	6 (100%)	4 (50%)
Inflammation, Chronic Active				1 (17%)		1 (13%)
Duct, Dilatation	2 (100%)	6 (100%)	5 (83%)	6 (100%)	6 (100%)	8 (100%)
Fat Pad, Ovarian/parametrial	(0)	(0)	(0)	(0)	(0)	(0)
Necrosis						
Ovary	(26)	(26)	(49)	(49)	(47)	(50)
Angiectasis						
Atrophy	25 (96%)	26 (100%)	47 (96%)	48 (98%)	46 (98%)	50 (100%)
Cyst	5 (19%)	5 (19%)	6 (12%)	8 (16%)	5 (11%)	9 (18%)
Hyperplasia, Sertoliform	3 (12%)	3 (12%)	6 (12%)	4 (8%)	5 (11%)	6 (12%)
Hyperplasia, Tubulostromal			1 (2%)			
Infiltration Cellular, Polymorphonuclear						
Pigmentation						
Polyarteritis						
Bilateral, Cyst					2 (4%)	
Bilateral, Follicle, Cyst			1 (2%)	2 (4%)	2 (4%)	1 (2%)
Bursa, Cyst	1 (4%)	2 (8%)	1 (2%)	2 (4%)		2 (4%)
Corpus Luteum, Hypertrophy						
Follicle, Cyst		3 (12%)	4 (8%)	4 (8%)	2 (4%)	1 (2%)
Granulosa Cell, Hyperplasia		1 (4%)	2 (4%)	2 (4%)	1 (2%)	
Interstitial Cell, Hyperplasia				1 (2%)		
Rete Ovarii, Hyperplasia			1 (2%)			

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Oviduct	(26)	(26)	(49)	(49)	(45)	(48)
Epithelium, Hyperplasia						
Uterus	(26)	(26)	(49)	(49)	(48)	(49)
Adenomyosis						
Atrophy	1 (4%)	9 (35%)	10 (20%)	6 (12%)	4 (8%)	7 (14%)
Cyst						
Dilatation					1 (2%)	1 (2%)
Hemorrhage	1 (4%)				1 (2%)	
Hyperplasia, Stromal	1 (4%)					
Infiltration Cellular, Polymorphonuclear	1 (4%)					1 (2%)
Inflammation, Suppurative					1 (2%)	
Metaplasia, Squamous	2 (8%)	4 (15%)	5 (10%)	1 (2%)	2 (4%)	2 (4%)
Cervix, Cyst, Squamous			1 (2%)			
Cervix, Hyperplasia, Stromal						
Endometrial Glands, Hyperplasia	2 (8%)	1 (4%)	1 (2%)			1 (2%)
Endometrium, Cyst		2 (8%)	1 (2%)		2 (4%)	
Endometrium, Degeneration					1 (2%)	
Endometrium, Hyperplasia	10 (38%)	2 (8%)	18 (37%)	14 (29%)	17 (35%)	14 (29%)
Endometrium, Hyperplasia, Cystic	14 (54%)	14 (54%)	18 (37%)	23 (47%)	22 (46%)	25 (51%)
Lumen, Dilatation	2 (8%)	3 (12%)	3 (6%)	6 (12%)	2 (4%)	4 (8%)
Stroma, Fibrosis					1 (2%)	
Vagina	(26)	(26)	(49)	(50)	(47)	(49)
Atrophy		3 (12%)	2 (4%)		2 (4%)	
Cyst, Squamous						
Foreign Body						
Hemorrhage						
Infiltration Cellular, Polymorphonuclear	3 (12%)	2 (8%)	8 (16%)	4 (8%)	6 (13%)	3 (6%)
Inflammation, Chronic Active						
Epithelium, Degeneration	1 (4%)	2 (8%)	5 (10%)	4 (8%)	5 (11%)	2 (4%)
Epithelium, Hyperplasia	5 (19%)	2 (8%)	6 (12%)	10 (20%)	3 (6%)	7 (14%)
Epithelium, Mucification	21 (81%)	23 (88%)	40 (82%)	46 (92%)	37 (79%)	44 (90%)
Lumen, Dilatation			1 (2%)			

HEMATOPOIETIC SYSTEM

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Bone Marrow	(26)	(26)	(49)	(49)	(47)	(49)
Hypocellularity	1 (4%)	1 (4%)	1 (2%)	3 (6%)	1 (2%)	2 (4%)
Myeloid Cell, Hyperplasia		2 (8%)			1 (2%)	
Lymph Node	(4)	(3)	(9)	(6)	(3)	(10)
Degeneration, Cystic						
Axillary, Degeneration, Cystic						
Axillary, Hyperplasia, Lymphoid						
Axillary, Infiltration Cellular, Plasma Cell						
Iliac, Degeneration, Cystic					1 (33%)	
Iliac, Hyperplasia, Lymphoid					1 (33%)	
Iliac, Infiltration Cellular, Plasma Cell		1 (33%)			1 (33%)	
Inguinal, Infiltration Cellular, Plasma Cell						
Lumbar, Degeneration, Cystic	4 (100%)		2 (22%)	1 (17%)	2 (67%)	4 (40%)
Lumbar, Hyperplasia, Lymphoid	4 (100%)	1 (33%)	4 (44%)	5 (83%)		5 (50%)
Lumbar, Infiltration Cellular, Plasma Cell	4 (100%)	1 (33%)	4 (44%)	5 (83%)	1 (33%)	8 (80%)
Mediastinal, Degeneration, Cystic	1 (25%)					
Mediastinal, Hemorrhage	1 (25%)					
Mediastinal, Hyperplasia, Lymphoid	1 (25%)		1 (11%)			
Mediastinal, Pigmentation						
Pancreatic, Degeneration, Cystic						
Pancreatic, Hyperplasia, Lymphoid			1 (11%)			
Pancreatic, Infiltration Cellular, Histiocyte			1 (11%)			
Popliteal, Hyperplasia, Lymphoid						1 (10%)
Popliteal, Infiltration Cellular, Plasma Cell		1 (33%)	1 (11%)			1 (10%)
Renal, Degeneration, Cystic			2 (22%)			
Renal, Hemorrhage						
Renal, Hyperplasia, Lymphoid			3 (33%)		1 (33%)	1 (10%)
Renal, Infiltration Cellular, Plasma Cell	1 (25%)		3 (33%)		1 (33%)	2 (20%)
Renal, Pigmentation						
Lymph Node, Mandibular	(0)	(1)	(4)	(5)	(3)	(8)
Degeneration, Cystic			3 (75%)	2 (40%)		5 (63%)
Hemorrhage						
Hyperplasia, Lymphoid		1 (100%)	2 (50%)	3 (60%)	2 (67%)	7 (88%)
Infiltration Cellular, Plasma Cell		1 (100%)	4 (100%)	3 (60%)	3 (100%)	7 (88%)
Necrosis						
Lymph Node, Mesenteric	(1)	(0)	(0)	(1)	(0)	(1)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Degeneration, Cystic	1 (100%)					
Hemorrhage	1 (100%)					
Histiocytosis						
Hyperplasia, Lymphoid	1 (100%)					
Infiltration Cellular, Plasma Cell						
Spleen	(26)	(26)	(49)	(50)	(47)	(49)
Bacterium						
Fibrosis						
Hematopoietic Cell Proliferation	15 (58%)	10 (38%)	32 (65%)	33 (66%)	29 (62%)	35 (71%)
Hyperplasia, Lymphoid		1 (4%)	1 (2%)			
Infiltration Cellular, Polymorphonuclear		1 (4%)				
Necrosis		1 (4%)				2 (4%)
Pigmentation	19 (73%)	26 (100%)	31 (63%)	34 (68%)	38 (81%)	35 (71%)
Polyarteritis						
Capsule, Cyst						
Capsule, Fibrosis						
Thymus	(26)	(26)	(49)	(50)	(48)	(50)
Atrophy	26 (100%)	25 (96%)	48 (98%)	48 (96%)	47 (98%)	47 (94%)
Cyst			1 (2%)	1 (2%)	1 (2%)	
Hemorrhage						
Necrosis		1 (4%)				
Polyarteritis			1 (2%)			
Epithelial Cell, Hyperplasia		1 (4%)	1 (2%)			

INTEGUMENTARY SYSTEM

Mammary Gland	(26)	(26)	(50)	(50)	(48)	(49)
Atypical Focus	2 (8%)	3 (12%)	6 (12%)	2 (4%)	6 (13%)	8 (16%)
Fibrosis		1 (4%)				
Galactocele		2 (8%)	1 (2%)			1 (2%)
Hyperplasia, Lobular	24 (92%)	23 (88%)	41 (82%)	40 (80%)	39 (81%)	39 (80%)
Infiltration Cellular, Polymorphonuclear						
Inflammation, Chronic		1 (4%)				
Metaplasia, Osseous	1 (4%)		1 (2%)			
Mineralization				1 (2%)		

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Experiment Number: 10034 - 04

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Alveolus, Dilatation	5 (19%)	22 (85%)	8 (16%)	4 (8%)	4 (8%)	8 (16%)
Duct, Dilatation	6 (23%)	21 (81%)	16 (32%)	5 (10%)	9 (19%)	9 (18%)
Duct, Hyperplasia	1 (4%)					1 (2%)
Skin	(9)	(9)	(16)	(8)	(8)	(19)
Cyst Epithelial Inclusion		1 (11%)				
Hemorrhage						
Inflammation, Suppurative						
Inflammation, Granulomatous						
Inflammation, Chronic Active						
Metaplasia, Osseous						
Ulcer						
Epithelium, Hyperplasia						
Epithelium, Foot, Hyperplasia	7 (78%)	8 (89%)	13 (81%)	5 (63%)	5 (63%)	14 (74%)
Foot, Bacterium	1 (11%)					
Foot, Cyst Epithelial Inclusion						
Foot, Edema	7 (78%)	4 (44%)	7 (44%)	3 (38%)	5 (63%)	12 (63%)
Foot, Fibrosis	8 (89%)	8 (89%)	13 (81%)	5 (63%)	4 (50%)	12 (63%)
Foot, Hyperkeratosis						
Foot, Inflammation, Chronic Active	8 (89%)	8 (89%)	13 (81%)	5 (63%)	5 (63%)	14 (74%)
Foot, Necrosis	7 (78%)	6 (67%)	11 (69%)	3 (38%)	3 (38%)	14 (74%)
Foot, Ulcer	8 (89%)	7 (78%)	12 (75%)	4 (50%)	5 (63%)	14 (74%)
Subcutaneous Tissue, Fibrosis				1 (13%)		

MUSCULOSKELETAL SYSTEM

Bone	(0)	(0)	(2)	(0)	(0)	(0)
Cranium, Fracture						
Joint, Edema						
Tarsal, Fibrosis			1 (50%)			
Tarsal, Hyperostosis			1 (50%)			
Tarsal, Inflammation, Chronic Active			1 (50%)			
Tarsal, Necrosis			1 (50%)			
Tarsal, Ulcer			1 (50%)			
Bone, Femur	(26)	(26)	(50)	(50)	(48)	(50)
Fibrous Osteodystrophy			1 (2%)			

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Osteopetrosis		1 (4%)				
Skeletal Muscle	(0)	(3)	(0)	(0)	(0)	(1)
Diaphragm, Hernia						
NERVOUS SYSTEM						
Brain, Brain Stem	(26)	(26)	(49)	(50)	(48)	(50)
Compression	6 (23%)	19 (73%)	15 (31%)	14 (28%)	11 (23%)	11 (22%)
Gliosis		1 (4%)				
Hemorrhage	1 (4%)	5 (19%)		2 (4%)		1 (2%)
Necrosis						1 (2%)
Polyarteritis						
Brain, Cerebellum	(26)	(26)	(49)	(50)	(48)	(50)
Hemorrhage		1 (4%)				
Brain, Cerebrum	(26)	(26)	(49)	(50)	(48)	(50)
Cyst						
Hemorrhage						
Ventricle, Dilatation	2 (8%)	8 (31%)	5 (10%)	5 (10%)	3 (6%)	2 (4%)
Nerve Trigeminal	(5)	(4)	(1)	(3)	(0)	(3)
Axon, Degeneration	3 (60%)	1 (25%)		2 (67%)		2 (67%)
Peripheral Nerve, Sciatic	(5)	(4)	(1)	(3)	(0)	(3)
Peripheral Nerve, Tibial	(5)	(4)	(1)	(3)	(0)	(3)
Axon, Degeneration						
Spinal Cord, Cervical	(5)	(4)	(1)	(3)	(0)	(3)
Mineralization						
Axon, Degeneration				1 (33%)		
Spinal Cord, Lumbar	(5)	(4)	(1)	(3)	(0)	(3)
Axon, Degeneration	4 (80%)	1 (25%)		3 (100%)		2 (67%)
Spinal Cord, Thoracic	(5)	(4)	(1)	(3)	(0)	(3)
Mineralization						
Axon, Degeneration				1 (33%)		
RESPIRATORY SYSTEM						
Lung	(21)	(22)	(40)	(40)	(39)	(40)

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Experiment Number: 10034 - 04

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Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Congestion			2 (5%)	1 (3%)		
Fibrosis						1 (3%)
Foreign Body		1 (5%)		1 (3%)	1 (3%)	1 (3%)
Hemorrhage	1 (5%)		1 (3%)			1 (3%)
Infiltration Cellular, Histiocyte	4 (19%)	4 (18%)	7 (18%)	5 (13%)	11 (28%)	11 (28%)
Infiltration Cellular, Lymphocyte					1 (3%)	
Inflammation, Suppurative						
Inflammation, Granulomatous	1 (5%)	1 (5%)			1 (3%)	
Inflammation, Chronic						
Inflammation, Chronic Active				1 (3%)		1 (3%)
Metaplasia, Osseous	1 (5%)			2 (5%)		
Mineralization						
Necrosis						
Pigmentation						1 (3%)
Alveolar Epithelium, Hyperplasia	1 (5%)				1 (3%)	2 (5%)
Bronchiole, Epithelium, Hyperplasia		1 (5%)				
Mediastinum, Foreign Body						1 (3%)
Mediastinum, Inflammation, Chronic						1 (3%)
Mediastinum, Necrosis						1 (3%)
Nose	(19)	(22)	(38)	(36)	(35)	(37)
Autolysis						
Fibrosis						1 (3%)
Fibrous Osteodystrophy						
Foreign Body					1 (3%)	4 (11%)
Hemorrhage						
Inflammation, Suppurative					1 (3%)	3 (8%)
Inflammation, Chronic Active		1 (5%)				1 (3%)
Osteopetrosis		1 (5%)				
Olfactory Epithelium, Accumulation, Hyaline Droplet	3 (16%)	7 (32%)	7 (18%)	11 (31%)	6 (17%)	7 (19%)
Respiratory Epithelium, Accumulation, Hyaline Droplet		3 (14%)	1 (3%)	1 (3%)	3 (9%)	2 (5%)
Respiratory Epithelium, Hyperplasia						
Respiratory Epithelium, Hyperplasia, Goblet Cell		2 (9%)	1 (3%)	1 (3%)		1 (3%)
Respiratory Epithelium, Ulcer						1 (3%)

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Transitional Epithelium, Accumulation, Hyaline Droplet		1 (5%)			1 (3%)	1 (3%)
Upper Molar, Inflammation, Chronic Active			1 (3%)		1 (3%)	1 (3%)
Trachea	(19)	(20)	(38)	(36)	(33)	(35)
Infiltration Cellular, Lymphocyte Inflammation, Chronic Active		1 (5%)		1 (3%)		

SPECIAL SENSES SYSTEM

Ear	(0)	(0)	(0)	(0)	(0)	(0)
Eye	(0)	(0)	(0)	(0)	(0)	(0)
Cataract						
Anterior Chamber, Edema						
Cornea, Edema						
Retina, Degeneration						
Zymbal's Gland	(1)	(0)	(0)	(1)	(0)	(0)
Abscess	1 (100%)					
Inflammation, Suppurative				1 (100%)		
Thrombosis						
Duct, Dilatation				1 (100%)		

URINARY SYSTEM

Kidney	(26)	(26)	(49)	(50)	(47)	(49)
Accumulation, Hyaline Droplet				2 (4%)		
Angiectasis	1 (4%)					
Casts Protein	3 (12%)	2 (8%)	5 (10%)	5 (10%)	5 (11%)	7 (14%)
Cyst	1 (4%)					
Fibrosis						
Infarct					1 (2%)	
Infiltration Cellular, Lymphocyte				1 (2%)		
Infiltration Cellular, Mononuclear Cell				1 (2%)		
Infiltration Cellular, Polymorphonuclear		1 (4%)		1 (2%)		1 (2%)
Mineralization	10 (38%)	17 (65%)	28 (57%)	22 (44%)	28 (60%)	26 (53%)
Nephropathy	14 (54%)	15 (58%)	28 (57%)	25 (50%)	25 (53%)	29 (59%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 0.05 EE2 F	F1 0.50 EE2 F	F1 Veh. StDose F	F1 2.5 StDose F	F1 25.0 StDose F	F1 250.0StDose F
Polyarteritis						
Polycystic Kidney						
Capsule, Fibrosis						
Capsule, Inflammation, Chronic Active						
Cortex, Cyst	7 (27%)	2 (8%)	7 (14%)	10 (20%)	9 (19%)	7 (14%)
Pelvis, Dilatation	1 (4%)			1 (2%)		
Renal Tubule, Cyst	5 (19%)	6 (23%)	7 (14%)	15 (30%)	11 (23%)	8 (16%)
Renal Tubule, Dilatation	1 (4%)					
Renal Tubule, Necrosis						
Renal Tubule, Vacuolization Cytoplasmic						
Transitional Epithelium, Hyperplasia	5 (19%)	9 (35%)	5 (10%)	6 (12%)	2 (4%)	5 (10%)
Urinary Bladder	(1)	(0)	(0)	(1)	(0)	(0)
Congestion						
Edema						
Hemorrhage	1 (100%)					
Lumen, Dilatation				1 (100%)		

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
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Disposition Summary

Animals Initially In Study	50	46
Early Deaths		
Moribund Sacrifice	26	25
Natural Death	3	2
Survivors		
Moribund Sacrifice	4	6
Natural Death		
Terminal Sacrifice	17	13
Animals Examined Microscopically	50	46

ALIMENTARY SYSTEM

Esophagus	(33)	(33)
Dilatation	1 (3%)	
Ulcer	1 (3%)	
Periesophageal Tissue, Foreign Body	1 (3%)	
Periesophageal Tissue, Inflammation, Granulomatous	1 (3%)	
Intestine Large, Cecum	(0)	(0)
Fibrosis		
Inflammation, Chronic Active		
Necrosis		
Perforation		
Intestine Large, Colon	(32)	(33)
Dilatation		
Intestine Small, Duodenum	(0)	(0)
Fibrosis		
Intestine Small, Ileum	(30)	(33)
Diverticulum	1 (3%)	
Foreign Body		
Inflammation, Chronic Active		
Epithelium, Hyperplasia		
Intestine Small, Jejunum	(0)	(0)
Dilatation		

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Experiment Number: 10034 - 04

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Bisphenol A

CAS Number: 80-05-7

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Diverticulum		
Fibrosis		
Inflammation, Chronic Active		
Metaplasia, Osseous		
Necrosis		
Ulcer		
Epithelium, Hyperplasia		
Liver	(50)	(46)
Angiectasis	5 (10%)	3 (7%)
Basophilic Focus	22 (44%)	23 (50%)
Basophilic Focus, Multiple		
Cholangiofibrosis		
Clear Cell Focus	13 (26%)	9 (20%)
Cyst		
Deformity	1 (2%)	
Degeneration, Cystic	8 (16%)	7 (15%)
Eosinophilic Focus		1 (2%)
Fatty Change	11 (22%)	15 (33%)
Fibrosis		
Hematopoietic Cell Proliferation	4 (8%)	2 (4%)
Hemorrhage		
Hepatodiaphragmatic Nodule	3 (6%)	4 (9%)
Infiltration Cellular, Mononuclear Cell	31 (62%)	31 (67%)
Inflammation, Chronic		
Inflammation, Chronic Active		4 (9%)
Mineralization		
Mitotic Alteration		
Mixed Cell Focus		4 (9%)
Pigmentation		
Tension Lipidosis	6 (12%)	10 (22%)
Vacuolization Cytoplasmic	16 (32%)	12 (26%)
Bile Duct, Hyperplasia	18 (36%)	17 (37%)
Biliary Tract, Cyst	2 (4%)	
Biliary Tract, Cyst, Multiple		
Biliary Tract, Fibrosis	5 (10%)	8 (17%)
Capsule, Fibrosis		

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Experiment Number: 10034 - 04

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P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Capsule, Hemorrhage	1 (2%)	
Capsule, Inflammation, Chronic Active		
Hepatocyte, Degeneration		
Hepatocyte, Necrosis	1 (2%)	3 (7%)
Oval Cell, Hyperplasia	1 (2%)	1 (2%)
Mesentery	(1)	(3)
Fat, Degeneration, Cystic		
Fat, Infiltration Cellular, Lymphocyte		
Fat, Inflammation, Granulomatous		
Fat, Inflammation, Chronic		
Fat, Necrosis	1 (100%)	3 (100%)
Oral Mucosa	(0)	(1)
Pancreas	(49)	(46)
Basophilic Focus	2 (4%)	2 (4%)
Infiltration Cellular, Lymphocyte	32 (65%)	30 (65%)
Inflammation, Chronic Active	2 (4%)	2 (4%)
Lipomatosis	6 (12%)	6 (13%)
Necrosis	1 (2%)	
Pigmentation	11 (22%)	8 (17%)
Polyarteritis		
Acinar Cell, Hyperplasia	1 (2%)	
Acinus, Degeneration	34 (69%)	34 (74%)
Artery, Fibrosis		
Artery, Inflammation, Chronic Active		
Artery, Mineralization		
Stomach, Forestomach	(34)	(34)
Cyst Epithelial Inclusion		2 (6%)
Edema		1 (3%)
Inflammation, Chronic Active		
Necrosis		1 (3%)
Ulcer		
Epithelium, Hyperplasia		1 (3%)
Stomach, Glandular	(32)	(32)
Cyst Epithelial Inclusion		
Diverticulum	1 (3%)	
Edema		

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Inflammation, Chronic Active		
Mineralization		
Pigmentation		
Polyarteritis		
Epithelium, Hyperplasia		
Tongue	(0)	(0)
Ulcer		

CARDIOVASCULAR SYSTEM

Blood Vessel	(50)	(46)
Mineralization		
Intima, Inflammation, Chronic		
Intima, Proliferation		
Heart	(50)	(46)
Cardiomyopathy	35 (70%)	35 (76%)
Inflammation, Chronic Active		
Metaplasia, Osseous		
Mineralization		
Polyarteritis		
Thrombosis		
Myocardium, Necrosis		

ENDOCRINE SYSTEM

Adrenal Cortex	(50)	(46)
Accessory Adrenal Cortical Nodule		
Angiectasis	6 (12%)	10 (22%)
Atrophy		1 (2%)
Cyst		1 (2%)
Degeneration, Cystic	33 (66%)	25 (54%)
Fibrosis		
Hemorrhage		
Hyperplasia	3 (6%)	7 (15%)
Hypertrophy		4 (9%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Metaplasia, Osseous		1 (2%)
Necrosis		
Pigmentation		
Vacuolization Cytoplasmic	5 (10%)	6 (13%)
Capsule, Fibrosis		
Adrenal Medulla	(50)	(45)
Cyst		
Degeneration, Cystic	1 (2%)	
Hyperplasia	8 (16%)	5 (11%)
Hypertrophy		
Islets, Pancreatic	(49)	(46)
Hyperplasia		2 (4%)
Parathyroid Gland	(47)	(46)
Hyperplasia	5 (11%)	7 (15%)
Pituitary Gland	(50)	(46)
Angiectasis	14 (28%)	11 (24%)
Fibrosis		1 (2%)
Hemorrhage	1 (2%)	
Necrosis		
Pigmentation		
Pars Distalis, Cyst	5 (10%)	4 (9%)
Pars Distalis, Hyperplasia	28 (56%)	21 (46%)
Pars Distalis, Hypertrophy		
Pars Distalis, Vacuolization Cytoplasmic		1 (2%)
Pars Intermedia, Cyst		
Pars Intermedia, Vacuolization Cytoplasmic	1 (2%)	
Rathke's Cleft, Cyst	1 (2%)	
Thyroid Gland	(50)	(46)
Angiectasis		
Fibrosis		
Infiltration Cellular, Lymphocyte		
Inflammation, Chronic Active		
Ultimobranchial Cyst	11 (22%)	3 (7%)
C-cell, Hyperplasia	28 (56%)	24 (52%)
Follicular Cell, Cyst		1 (2%)
Follicular Cell, Hyperplasia	5 (10%)	4 (9%)

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Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
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P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
 Bisphenol A
CAS Number: 80-05-7
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Date Report Requested: 08/16/2017
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Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
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GENERAL BODY SYSTEM

Tissue NOS	(0)	(1)
Metaplasia, Osseous		

GENITAL SYSTEM

Clitoral Gland	(6)	(7)
Atrophy		
Fibrosis		
Hyperkeratosis	3 (50%)	2 (29%)
Infiltration Cellular, Plasma Cell		
Inflammation, Suppurative	5 (83%)	5 (71%)
Inflammation, Chronic Active		
Duct, Dilatation	6 (100%)	6 (86%)
Fat Pad, Ovarian/parametrial	(1)	(0)
Necrosis	1 (100%)	
Ovary	(50)	(46)
Angiectasis		1 (2%)
Atrophy	49 (98%)	44 (96%)
Cyst	5 (10%)	6 (13%)
Hyperplasia, Sertoliform	7 (14%)	6 (13%)
Hyperplasia, Tubulostromal		
Infiltration Cellular, Polymorphonuclear	1 (2%)	
Pigmentation		
Polyarteritis		
Bilateral, Cyst	1 (2%)	
Bilateral, Follicle, Cyst		1 (2%)
Bursa, Cyst		
Corpus Luteum, Hypertrophy		
Follicle, Cyst	2 (4%)	4 (9%)
Granulosa Cell, Hyperplasia		2 (4%)
Interstitial Cell, Hyperplasia		
Rete Ovarii, Hyperplasia		

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2 Year Animals

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Oviduct	(49)	(46)
Epithelium, Hyperplasia		
Uterus	(49)	(46)
Adenomyosis	1 (2%)	1 (2%)
Atrophy	7 (14%)	9 (20%)
Cyst		
Dilatation	1 (2%)	1 (2%)
Hemorrhage		
Hyperplasia, Stromal	1 (2%)	
Infiltration Cellular, Polymorphonuclear		
Inflammation, Suppurative		
Metaplasia, Squamous	4 (8%)	3 (7%)
Cervix, Cyst, Squamous		
Cervix, Hyperplasia, Stromal	1 (2%)	
Endometrial Glands, Hyperplasia	1 (2%)	2 (4%)
Endometrium, Cyst		2 (4%)
Endometrium, Degeneration		
Endometrium, Hyperplasia	12 (24%)	10 (22%)
Endometrium, Hyperplasia, Cystic	28 (57%)	24 (52%)
Lumen, Dilatation	2 (4%)	
Stroma, Fibrosis		
Vagina	(49)	(46)
Atrophy	1 (2%)	2 (4%)
Cyst, Squamous		
Foreign Body		
Hemorrhage		
Infiltration Cellular, Polymorphonuclear	13 (27%)	8 (17%)
Inflammation, Chronic Active		
Epithelium, Degeneration	5 (10%)	3 (7%)
Epithelium, Hyperplasia	7 (14%)	7 (15%)
Epithelium, Mucification	39 (80%)	34 (74%)
Lumen, Dilatation	1 (2%)	1 (2%)

HEMATOPOIETIC SYSTEM

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Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Bone Marrow	(49)	(45)
Hypocellularity	2 (4%)	3 (7%)
Myeloid Cell, Hyperplasia	2 (4%)	
Lymph Node	(4)	(11)
Degeneration, Cystic		
Axillary, Degeneration, Cystic		1 (9%)
Axillary, Hyperplasia, Lymphoid		1 (9%)
Axillary, Infiltration Cellular, Plasma Cell		1 (9%)
Iliac, Degeneration, Cystic		
Iliac, Hyperplasia, Lymphoid		
Iliac, Infiltration Cellular, Plasma Cell		
Inguinal, Infiltration Cellular, Plasma Cell		
Lumbar, Degeneration, Cystic	2 (50%)	3 (27%)
Lumbar, Hyperplasia, Lymphoid	2 (50%)	6 (55%)
Lumbar, Infiltration Cellular, Plasma Cell	3 (75%)	5 (45%)
Mediastinal, Degeneration, Cystic		
Mediastinal, Hemorrhage		
Mediastinal, Hyperplasia, Lymphoid		
Mediastinal, Pigmentation		
Pancreatic, Degeneration, Cystic		
Pancreatic, Hyperplasia, Lymphoid		
Pancreatic, Infiltration Cellular, Histiocyte		
Popliteal, Hyperplasia, Lymphoid		
Popliteal, Infiltration Cellular, Plasma Cell		
Renal, Degeneration, Cystic		2 (18%)
Renal, Hemorrhage		
Renal, Hyperplasia, Lymphoid		
Renal, Infiltration Cellular, Plasma Cell	1 (25%)	
Renal, Pigmentation		1 (9%)
Lymph Node, Mandibular	(6)	(5)
Degeneration, Cystic	3 (50%)	3 (60%)
Hemorrhage		
Hyperplasia, Lymphoid	3 (50%)	2 (40%)
Infiltration Cellular, Plasma Cell	4 (67%)	2 (40%)
Necrosis		
Lymph Node, Mesenteric	(0)	(2)

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Test Type: CHRONIC

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 2500.StDose F

F1 25000StDose F

Degeneration, Cystic		
Hemorrhage		
Histiocytosis		
Hyperplasia, Lymphoid		
Infiltration Cellular, Plasma Cell		
Spleen	(49)	(46)
Bacterium		
Fibrosis		1 (2%)
Hematopoietic Cell Proliferation	31 (63%)	32 (70%)
Hyperplasia, Lymphoid		1 (2%)
Infiltration Cellular, Polymorphonuclear		
Necrosis	1 (2%)	1 (2%)
Pigmentation	32 (65%)	32 (70%)
Polyarteritis		1 (2%)
Capsule, Cyst	1 (2%)	
Capsule, Fibrosis		
Thymus	(49)	(46)
Atrophy	47 (96%)	42 (91%)
Cyst	1 (2%)	
Hemorrhage		
Necrosis		
Polyarteritis		
Epithelial Cell, Hyperplasia	1 (2%)	1 (2%)

INTEGUMENTARY SYSTEM

Mammary Gland	(50)	(46)
Atypical Focus	7 (14%)	5 (11%)
Fibrosis		
Galactocele		
Hyperplasia, Lobular	36 (72%)	38 (83%)
Infiltration Cellular, Polymorphonuclear		
Inflammation, Chronic		
Metaplasia, Osseous		
Mineralization		

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Alveolus, Dilatation	3 (6%)	7 (15%)
Duct, Dilatation	7 (14%)	11 (24%)
Duct, Hyperplasia	1 (2%)	1 (2%)
Skin	(16)	(12)
Cyst Epithelial Inclusion		
Hemorrhage		
Inflammation, Suppurative	1 (6%)	
Inflammation, Granulomatous	1 (6%)	
Inflammation, Chronic Active		
Metaplasia, Osseous	1 (6%)	
Ulcer	1 (6%)	
Epithelium, Hyperplasia		
Epithelium, Foot, Hyperplasia	10 (63%)	10 (83%)
Foot, Bacterium		
Foot, Cyst Epithelial Inclusion		1 (8%)
Foot, Edema	8 (50%)	6 (50%)
Foot, Fibrosis	10 (63%)	11 (92%)
Foot, Hyperkeratosis		
Foot, Inflammation, Chronic Active	10 (63%)	11 (92%)
Foot, Necrosis	7 (44%)	6 (50%)
Foot, Ulcer	10 (63%)	9 (75%)
Subcutaneous Tissue, Fibrosis		

MUSCULOSKELETAL SYSTEM

Bone	(0)	(0)
Cranium, Fracture		
Joint, Edema		
Tarsal, Fibrosis		
Tarsal, Hyperostosis		
Tarsal, Inflammation, Chronic Active		
Tarsal, Necrosis		
Tarsal, Ulcer		
Bone, Femur	(50)	(46)
Fibrous Osteodystrophy		

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

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2 Year Animals

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Lab: NCTR

Sprague Dawley (NCTR)
RATS FEMALE

F1 2500.StDose F

F1 25000StDose F

Osteopetrosis		1 (2%)
Skeletal Muscle	(0)	(2)
Diaphragm, Hernia		

NERVOUS SYSTEM

Brain, Brain Stem	(50)	(46)
Compression	17 (34%)	14 (30%)
Gliosis		
Hemorrhage	2 (4%)	1 (2%)
Necrosis		
Polyarteritis		
Brain, Cerebellum	(50)	(46)
Hemorrhage	1 (2%)	
Brain, Cerebrum	(50)	(46)
Cyst		
Hemorrhage		2 (4%)
Ventricle, Dilatation	5 (10%)	6 (13%)
Nerve Trigeminal	(3)	(4)
Axon, Degeneration	3 (100%)	2 (50%)
Peripheral Nerve, Sciatic	(3)	(4)
Peripheral Nerve, Tibial	(3)	(4)
Axon, Degeneration		
Spinal Cord, Cervical	(3)	(4)
Mineralization		
Axon, Degeneration	1 (33%)	
Spinal Cord, Lumbar	(3)	(4)
Axon, Degeneration	2 (67%)	1 (25%)
Spinal Cord, Thoracic	(3)	(4)
Mineralization		
Axon, Degeneration	1 (33%)	

RESPIRATORY SYSTEM

Lung	(39)	(37)
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Congestion		
Fibrosis	1 (3%)	
Foreign Body		
Hemorrhage	2 (5%)	
Infiltration Cellular, Histiocyte	10 (26%)	7 (19%)
Infiltration Cellular, Lymphocyte		
Inflammation, Suppurative	1 (3%)	1 (3%)
Inflammation, Granulomatous		
Inflammation, Chronic	1 (3%)	2 (5%)
Inflammation, Chronic Active		
Metaplasia, Osseous	2 (5%)	
Mineralization		
Necrosis		
Pigmentation		
Alveolar Epithelium, Hyperplasia	1 (3%)	3 (8%)
Bronchiole, Epithelium, Hyperplasia		
Mediastinum, Foreign Body		
Mediastinum, Inflammation, Chronic		
Mediastinum, Necrosis		
Nose	(32)	(33)
Autolysis		1 (3%)
Fibrosis		
Fibrous Osteodystrophy		
Foreign Body	1 (3%)	1 (3%)
Hemorrhage		1 (3%)
Inflammation, Suppurative	2 (6%)	1 (3%)
Inflammation, Chronic Active	1 (3%)	
Osteopetrosis		
Olfactory Epithelium, Accumulation, Hyaline Droplet	4 (13%)	3 (9%)
Respiratory Epithelium, Accumulation, Hyaline Droplet	1 (3%)	1 (3%)
Respiratory Epithelium, Hyperplasia		
Respiratory Epithelium, Hyperplasia, Goblet Cell	3 (9%)	1 (3%)
Respiratory Epithelium, Ulcer		

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Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Transitional Epithelium, Accumulation, Hyaline Droplet		
Upper Molar, Inflammation, Chronic Active		
Trachea	(32)	(33)
Infiltration Cellular, Lymphocyte Inflammation, Chronic Active		

SPECIAL SENSES SYSTEM

Ear	(0)	(1)
Eye	(1)	(0)
Cataract	1 (100%)	
Anterior Chamber, Edema	1 (100%)	
Cornea, Edema		
Retina, Degeneration	1 (100%)	
Zymbal's Gland	(0)	(0)
Abscess		
Inflammation, Suppurative		
Thrombosis		
Duct, Dilatation		

URINARY SYSTEM

Kidney	(50)	(46)
Accumulation, Hyaline Droplet		
Angiectasis		
Casts Protein	5 (10%)	4 (9%)
Cyst		
Fibrosis		
Infarct	1 (2%)	1 (2%)
Infiltration Cellular, Lymphocyte		
Infiltration Cellular, Mononuclear Cell		
Infiltration Cellular, Polymorphonuclear	3 (6%)	1 (2%)
Mineralization	23 (46%)	23 (50%)
Nephropathy	33 (66%)	30 (65%)

a - Number of animals examined microscopically at site and number of animals with lesion

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P03: INCIDENCE RATES OF NON-NEOPLASTIC LESIONS BY ANATOMIC SITE(a)

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

Sprague Dawley (NCTR) RATS FEMALE	F1 2500.StDose F	F1 25000StDose F
Polyarteritis		1 (2%)
Polycystic Kidney		1 (2%)
Capsule, Fibrosis		
Capsule, Inflammation, Chronic Active		
Cortex, Cyst	8 (16%)	5 (11%)
Pelvis, Dilatation		
Renal Tubule, Cyst	16 (32%)	11 (24%)
Renal Tubule, Dilatation		
Renal Tubule, Necrosis		
Renal Tubule, Vacuolization Cytoplasmic		
Transitional Epithelium, Hyperplasia	4 (8%)	8 (17%)
Urinary Bladder	(1)	(1)
Congestion	1 (100%)	
Edema		1 (100%)
Hemorrhage		1 (100%)
Lumen, Dilatation		

*** END OF REPORT ***

a - Number of animals examined microscopically at site and number of animals with lesion

Appendix IV Neoplasms by Individual Animal (Pathology Report 4)

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

NTP Study Number: C10034
Lock Date: 08/16/2017
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: 09/29/2017

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 Veh. Ctrl M	DAY ON TEST																				* TOTALS	
	0 2 8 3	0 3 6 1	0 3 6 2	0 3 5 4	0 3 6 0	0 2 5 9	0 3 6 3	0 3 6 2	0 3 6 0	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 5	0 3 6 6	0 3 7 4	0 3 6 3	0 3 6 2	0 3 6 2	0 3 6 2	0 3 6 4		0 3 6 4
ANIMAL ID	0 0 0 7 1	0 0 0 7 2	0 0 0 8 1	0 0 0 8 2	0 2 2 2 1	0 2 2 2 2	0 2 2 3 1	0 2 2 3 2	0 2 2 4 1	0 2 2 4 8	0 2 2 4 8	0 4 3 9 1	0 4 3 9 2	0 4 3 9 0	0 4 4 0 4	0 6 5 4 1	0 6 5 4 5	0 6 5 5 1	0 6 5 5 2	0 8 3 9 1	0 8 3 9 2	

ALIMENTARY SYSTEM

Esophagus	+					+									+	+							4	
Lymphoma Malignant															X									1
Intestine Large, Colon	+					+									+	+								4
Intestine Small, Ileum	+					+									+	+								4
Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant	X														X									2
Mesentery									+															1
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant	X														X									2
Stomach, Forestomach	+		+			+									+	+								5
Lymphoma Malignant	X														X									2
Stomach, Glandular	+					+									+	+								4
Lymphoma Malignant															X									1

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant	X														X									2

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 Veh. Ctrl M	DAY ON TEST																				* TOTALS	
	0 2 8 3	0 3 6 1	0 3 6 2	0 3 5 4	0 3 6 0	0 2 5 9	0 3 6 3	0 3 6 3	0 3 6 2	0 3 6 0	0 3 6 3	0 3 6 3	0 3 6 6	0 3 5 8	0 3 6 4	0 1 7 4	0 3 6 3	0 3 6 2	0 3 6 2	0 3 6 4		0 3 6 4
ANIMAL ID	0 0 0 7 1	0 0 0 7 2	0 0 0 8 1	0 0 0 2 2	0 2 2 2 1	0 2 2 2 2	0 2 2 3 1	0 2 2 3 2	0 2 2 4 1	0 2 2 4 2	0 2 2 4 1	0 4 3 8 2	0 4 3 9 1	0 4 3 9 2	0 4 4 0 1	0 4 4 0 2	0 6 5 4 1	0 6 5 4 2	0 6 5 5 1	0 6 5 5 2	0 8 3 9 1	0 8 3 9 2

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant	X											X										2
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant	X																					1
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant	X											X										2
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant	X												X									2
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant													X									1

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Preputial Gland													+									2

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 Veh. Ctrl M	DAY ON TEST																				* TOTALS	
	0 2 8 3	0 3 6 1	0 3 6 2	0 3 5 4	0 3 6 0	0 2 5 9	0 3 6 3	0 3 6 3	0 3 6 2	0 3 6 0	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 5	0 3 6 6	0 3 6 7	0 3 6 6	0 3 6 6	0 3 6 6	0 3 6 4		0 3 6 4
ANIMAL ID	0 0 0 7 1	0 0 0 7 2	0 0 0 8 1	0 0 0 2 1	0 2 2 2 1	0 2 2 2 2	0 2 2 3 1	0 2 2 3 2	0 2 2 4 1	0 2 2 4 2	0 2 2 8 1	0 4 3 8 2	0 4 3 9 1	0 4 3 9 2	0 4 4 0 1	0 4 4 0 2	0 6 5 4 1	0 6 5 4 1	0 6 5 5 2	0 6 5 5 1	0 8 3 9 1	0 8 3 9 2

Prostate, Dorsal/lateral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant	X													X								2
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant														X								1
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant	X													X								2
Lymph Node	+													+								2
Axillary, Lymphoma Malignant	X													X								2
Cervical, Lymphoma Malignant														X								1
Inguinal, Lymphoma Malignant	X													X								2
Lumbar, Lymphoma Malignant	X													X								2
Mediastinal, Lymphoma Malignant														X								1
Pancreatic, Lymphoma Malignant	X													X								2
Renal, Lymphoma Malignant	X													X								2
Lymph Node, Mandibular	+													+								2
Lymphoma Malignant	X													X								2
Lymph Node, Mesenteric	+													+								2
Lymphoma Malignant	X													X								2

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 Veh. Ctrl M	DAY ON TEST																				* TOTALS		
	0 2 8 3	0 3 6 1	0 3 6 2	0 3 5 4	0 3 6 0	0 2 5 9	0 3 6 3	0 3 6 3	0 3 6 2	0 3 6 0	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 5	0 3 6 8	0 3 6 7	0 3 6 6	0 3 6 6	0 3 6 6	0 3 6 6		0 3 6 4	0 3 6 4
ANIMAL ID	0 0 0 7 1	0 0 0 7 2	0 0 0 8 1	0 0 0 8 2	0 2 2 2 1	0 2 2 2 2	0 2 2 3 1	0 2 2 3 2	0 2 2 4 1	0 2 2 4 2	0 2 2 4 1	0 4 3 8 2	0 4 3 8 1	0 4 3 9 2	0 4 4 9 1	0 4 4 0 2	0 6 5 4 1	0 6 5 4 2	0 6 5 5 1	0 6 5 5 2	0 8 5 9 1	0 8 3 9 2	
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant	X													X									2
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant	X																						1
INTEGUMENTARY SYSTEM																							
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant	X													X									2
Skin																					+	1	
Squamous Cell Papilloma																					X	1	
MUSCULOSKELETAL SYSTEM																							
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Skeletal Muscle																					+	1	
Sarcoma																					X	1	
NERVOUS SYSTEM																							
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant														X									1

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 Veh. Ctrl M	DAY ON TEST																				* TOTALS
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
ANIMAL ID	2	3	3	3	3	2	3	3	3	3	3	3	3	3	3	1	3	3	3	3	3
	8	6	6	5	6	5	6	6	6	6	6	6	5	6	7	6	6	6	6	6	6
	3	1	2	4	0	9	3	3	2	0	3	3	3	8	4	4	3	2	2	2	4
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	0	0	0	0	2	2	2	2	2	2	4	4	4	4	4	4	6	6	6	6	8
	0	0	0	0	2	2	2	2	2	2	3	3	3	3	4	4	5	5	5	5	3
	7	7	8	8	2	2	3	3	4	4	8	9	9	0	0	4	4	5	5	9	9
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1

Nerve Trigeminal																								2
Peripheral Nerve, Sciatic																								2
Peripheral Nerve, Tibial																								2
Spinal Cord, Cervical																								2
Spinal Cord, Lumbar																								2
Spinal Cord, Thoracic																								2

RESPIRATORY SYSTEM

Lung																								5
Lymphoma Malignant	X																							2
Sarcoma, Metastatic, Skeletal Muscle																								1
Nose																								4
Lymphoma Malignant	X																							2
Trachea																								4
Lymphoma Malignant																								1

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
--------	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	----

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 Veh. Ctrl M	DAY ON TEST																				* TOTALS	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		0
ANIMAL ID	2	3	3	3	3	2	3	3	3	3	3	3	3	3	3	3	1	3	3	3	3	
	8	6	6	5	6	5	6	6	6	6	6	6	5	6	7	6	6	6	6	6	6	
	3	1	2	4	0	9	3	3	2	0	3	3	8	4	4	3	2	2	2	4	4	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	0	0	0	0	2	2	2	2	2	2	4	4	4	4	4	4	6	6	6	6	8	
	0	0	0	0	2	2	2	2	2	2	3	3	3	3	4	4	5	5	5	5	3	
	7	7	8	8	2	2	3	3	4	4	8	8	9	9	0	0	4	4	5	5	9	
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	2	
Lymphoma Malignant	X													X								2
Urinary Bladder																						1
SYSTEMIC LESIONS																						
Multiple Organ	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Lymphoma Malignant	X															X						2

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 2.5 BPA M	DAY ON TEST																				* TOTALS	
	0 3 6 3	0 3 6 2	0 3 6 3	0 3 6 2	0 3 6 3	0 3 6 3	0 3 6 4	0 3 6 3	0 3 6 2	0 3 6 1	0 3 6 3	0 3 6 3	0 3 6 2	0 3 6 2	0 3 6 2	0 3 6 1	0 3 6 5	0 3 6 6	0 3 6 2	0 3 6 5		0 3 6 5
ANIMAL ID	0 0 2 2 1	0 0 2 2 2	0 0 2 3 1	0 0 2 4 2	0 0 2 4 1	0 0 2 4 2	0 2 3 8 1	0 2 3 8 2	0 2 3 8 1	0 2 3 9 2	0 2 3 9 1	0 2 4 9 0	0 2 4 9 2	0 4 5 9 4	0 4 5 9 4	0 4 6 9 1	0 6 6 3 2	0 6 6 3 1	0 6 6 8 2	0 6 6 8 1	0 8 5 8 2	0 8 5 2 2
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
INTEGUMENTARY SYSTEM																						
Mammary Gland	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	21
Skin					+											+						2
MUSCULOSKELETAL SYSTEM																						
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
NERVOUS SYSTEM																						
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Nerve Trigeminal													+	+								2
Peripheral Nerve, Sciatic														+	+							2
Peripheral Nerve, Tibial														+	+							2
Spinal Cord, Cervical														+	+							2
Spinal Cord, Lumbar														+	+							2

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 25.0 BPA M	DAY ON TEST																				ANIMAL ID	
	0363	0362	0362	0360	0365	0360	0361	0361	0362	0366	0368	0363	0363	0363	0363	0363	0366	0366	0361	0363		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0033	
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0002	
	3	3	3	3	4	4	5	5	5	5	5	5	7	7	7	7	8	8	6	6	3334	
	8	8	9	9	0	0	4	5	5	6	0	0	1	1	2	1	2	2	2	6	8890	
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1212	
																						* TOTALS

Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Parathyroid Gland	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Preputial Gland		+			+									+							3
Prostate, Dorsal/lateral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 25.0 BPA M	DAY ON TEST																				* TOTALS
	0 3 6 3	0 3 6 2	0 3 6 2	0 3 6 0	0 3 6 5	0 3 6 0	0 3 6 1	0 3 6 1	0 1 6 8	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	
ANIMAL ID	0 0 3 8 1	0 0 3 8 2	0 0 3 9 1	0 0 3 9 2	0 0 4 0 1	0 0 4 0 2	0 2 5 4 1	0 2 5 4 2	0 2 5 5 1	0 2 5 5 2	0 2 5 6 1	0 2 5 6 2	0 4 7 0 1	0 4 7 0 2	0 4 7 1 1	0 6 8 2 1	0 6 8 2 2	0 8 6 2 1	0 8 6 2 1	0 8 6 1 2	0 8 6 1 2
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
INTEGUMENTARY SYSTEM																					
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
MUSCULOSKELETAL SYSTEM																					
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Skeletal Muscle							+														1
NERVOUS SYSTEM																					
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
RESPIRATORY SYSTEM																					
Lung								+	+		+										3
Nose								+			+										2

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 25.0 BPA M	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	ANIMAL ID	3	3	3	3	3	3	3	1	3	3	3	3	3	3	3	3	3	3	3	
		6	6	6	6	6	2	6	6	6	6	6	6	6	6	6	6	6	6	6	
		3	2	2	0	5	0	1	1	8	3	3	3	3	3	2	4	1	3	3	
		0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
		0	0	0	0	0	0	2	2	2	2	2	2	4	4	4	4	6	6	8	8
		3	3	3	3	4	4	5	5	5	5	5	5	7	7	7	7	8	8	6	6
		8	8	9	9	0	0	4	4	5	5	6	6	0	0	1	1	2	2	6	6
		1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2
* TOTALS																					

Trachea + + 2

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney + + + + + + + + + + + + + + + + + + 20

SYSTEMIC LESIONS

Multiple Organ + + + + + + + + + + + + + + + + + + 20

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 250.0 BPA M	DAY ON TEST																								* TOTALS
	0 3 6 3	0 3 6 2	0 3 6 3	0 3 6 3	0 3 6 4	0 3 6 3	0 3 6 0	0 3 6 0	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 1	0 3 6 4	0 3 6 3	0 3 6 4	0 3 6 4	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 4		
ANIMAL ID	0 0 5 4 1	0 0 5 4 2	0 0 5 5 1	0 0 5 5 2	0 0 5 6 1	0 0 5 6 2	0 2 7 0 1	0 2 7 1 2	0 2 7 1 2	0 2 7 1 2	0 2 7 1 2	0 4 8 2 1	0 4 8 7 2	0 4 8 8 1	0 4 8 8 2	0 6 9 6 1	0 6 9 6 2	0 6 9 7 1	0 6 9 7 2	0 8 8 0 1	0 8 8 0 2	0 8 8 0 1	0 8 8 1 1	0 8 8 1 2	

ALIMENTARY SYSTEM

Liver	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Mesentery																								+	1
Pancreas	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24

CARDIOVASCULAR SYSTEM

Blood Vessel	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Heart	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24

ENDOCRINE SYSTEM

Adrenal Cortex	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Adrenal Medulla	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 250.0 BPA M	DAY ON TEST																								* TOTALS
	0363	0362	0363	0363	0364	0363	0360	0360	0363	0363	0363	0363	0363	0363	0363	0363	0363	0363	0363	0363	0363	0363	0363	0363	
ANIMAL ID	00541	00542	00541	00542	00541	00542	00541	00542	00541	00542	00541	00542	00541	00542	00541	00542	00541	00542	00541	00542	00541	00542	00541	00542	00541

NONE

GENITAL SYSTEM

Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Fat Pad, Epididymal																										1
Preputial Gland																										1
Prostate, Dorsal/lateral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24

HEMATOPOIETIC SYSTEM

Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24
Thymus	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 250.0 BPA M	DAY ON TEST																								* TOTALS	
	0 3 6 3	0 3 6 2	0 3 6 3	0 3 6 3	0 3 6 4	0 3 6 3	0 3 6 0	0 3 6 0	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 1	0 3 6 4	0 3 6 3	0 3 6 4	0 3 6 4	0 3 6 4	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 4		
ANIMAL ID	0 0 5 4 1	0 0 5 4 2	0 0 5 5 1	0 0 5 5 2	0 0 5 6 1	0 0 5 6 2	0 2 7 0 1	0 2 7 0 2	0 2 7 1 1	0 2 7 1 2	0 2 7 1 2	0 2 7 1 2	0 4 8 6 2	0 4 8 6 1	0 4 8 6 2	0 4 8 6 1	0 6 9 6 2	0 6 9 6 1	0 6 9 6 2	0 6 9 6 1	0 8 8 0 2	0 8 8 0 1	0 8 8 0 1	0 8 8 1 2	0 8 8 1 2	
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Skin																					+				1	
MUSCULOSKELETAL SYSTEM																										
Bone													+												1	
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
NERVOUS SYSTEM																										
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	24	
Nerve Trigeminal																							+		1	
Peripheral Nerve, Sciatic																							+		1	
Peripheral Nerve, Tibial																							+		1	
Spinal Cord, Cervical																							+		1	
Spinal Cord, Lumbar																							+		1	
Spinal Cord, Thoracic																							+		1	

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 2500.BPA M	DAY ON TEST	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	ANIMAL ID		
	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3	2			3
	6	6	6	6	0	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	4	6		
	3	3	2	2	1	5	1	1	1	1	2	2	3	3	3	2	4	3	5	4		4		
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
	0	0	0	0	0	0	2	2	2	2	2	2	5	5	5	5	7	7	8	8		8		
	7	7	7	7	7	7	8	8	8	8	8	8	0	0	0	0	1	1	9	9		9		
	0	0	1	1	2	2	6	6	7	7	8	2	2	3	3	1	1	4	4		4			
	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2	1	2		2		
																								* TOTALS

Parathyroid Gland	M	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Pars Distalis, Adenoma																						X	1
Thyroid Gland	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+			18

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Coagulating Gland	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+			18
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Fat Pad, Epididymal										+													1
Preputial Gland																						+	1
Prostate, Dorsal/lateral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Seminal Vesicle	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+			18
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 2500.BPA M	DAY ON TEST																				* TOTALS	
	0363	0332	0332	0331	0335	0331	0331	0331	0331	0332	0332	0333	0333	0333	0333	0332	0334	0333	0325	0323		
ANIMAL ID	0070	0077	0077	0077	0077	0077	0088	0088	0088	0088	0088	0088	0088	0088	0088	0088	0088	0088	0088	0088		
Bone Marrow	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	18	
Lymph Node																					+	1
Lymph Node, Mandibular																					+	2
Spleen	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	A	+	18	
Thymus	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	19
INTEGUMENTARY SYSTEM																						
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	19	
Skin												+										1
MUSCULOSKELETAL SYSTEM																						
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
NERVOUS SYSTEM																						
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	20
Nerve Trigeminal																					+	1

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 2500.BPA M	DAY ON TEST																				* TOTALS		
	0 3 6 3	0 3 6 3	0 3 6 2	0 3 6 2	0 3 6 1	0 3 6 5	0 3 6 1	0 3 6 1	0 3 6 1	0 3 6 1	0 3 6 2	0 3 6 2	0 3 6 3	0 3 6 3	0 3 6 3	0 3 6 2	0 3 6 4	0 3 6 3	0 2 4 5	0 3 6 4			
ANIMAL ID	0 0 7 0 1	0 0 7 0 2	0 0 7 1 1	0 0 7 1 2	0 0 7 2 2	0 0 7 6 2	0 2 8 6 1	0 2 8 6 2	0 2 8 7 1	0 2 8 7 2	0 2 8 8 1	0 2 8 8 2	0 5 8 8 2	0 5 8 8 2	0 5 0 2 2	0 5 0 2 2	0 5 0 3 1	0 7 0 3 1	0 7 1 1 2	0 8 1 1 1	0 8 9 4 2		
Peripheral Nerve, Sciatic																					+	1	
Peripheral Nerve, Tibial																					+	1	
Spinal Cord, Cervical																					+	1	
Spinal Cord, Lumbar																					+	1	
Spinal Cord, Thoracic																					+	1	
RESPIRATORY SYSTEM																							
Lung																					+ A	+	2
Nose																					A	A	0
Trachea																					A	A	0
SPECIAL SENSES SYSTEM																							
NONE																							
URINARY SYSTEM																							
Kidney																					+ + + + A + + + + + + + + + + + + + + + +	19	
SYSTEMIC LESIONS																							
Multiple Organ																					+ + + + + + + + + + + + + + + + + + + +	20	

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 25000 BPA M	DAY ON TEST																				* TOTALS	
	0363	0360	0363	0362	0364	0364	0362	0361	0363	0361	0362	0369	0363	0363	0363	0363	0363	0362	0362	0364		0365
ANIMAL ID	00861	0082	0081	0082	0081	0082	0083	0083	0083	0083	0083	0083	0085	0085	0085	0085	0085	0087	0087	0087	0087	
Islets, Pancreatic	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	21
Pituitary Gland Pars Distalis, Adenoma	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	X	22 1
Thyroid Gland	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	21
GENERAL BODY SYSTEM																						
NONE																						
GENITAL SYSTEM																						
Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	21
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Preputial Gland																					+	1
Prostate, Dorsal/lateral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	21
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 25000 BPA M	DAY ON TEST																				* TOTALS	
	0363	0360	0363	0362	0364	0364	0362	0361	0363	0361	0362	0369	0363	0363	0363	0363	0363	0363	0362	0362		0364
ANIMAL ID	00861	00862	00871	00872	00881	00882	00833	00833	00833	00833	00833	00833	00855	00855	00855	00855	00855	00877	00877	00877	00877	
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Spleen	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Thymus	+	+	+	+	+	+	+	+	M	+	+	+	+	+	+	+	+	+	+	+	+	21
INTEGUMENTARY SYSTEM																						
Mammary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
MUSCULOSKELETAL SYSTEM																						
Bone, Femur	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
NERVOUS SYSTEM																						
Brain, Brain Stem	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Brain, Cerebellum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Brain, Cerebrum	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	22
Nerve Trigeminal																						1
Peripheral Nerve, Sciatic																						1
Peripheral Nerve, Tibial																						1
Spinal Cord, Cervical																						1

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 0.05 EE2 M	DAY ON TEST																									ANIMAL ID	males (cont...)
	0 3 6 3	0 3 6 3	0 3 6 2	0 3 6 2	0 1 6 9	0 3 6 2	0 3 4 7	0 3 6 0	0 3 6 2	0 3 6 2	0 3 6 4	0 3 6 2	0 3 6 2	0 3 6 3	0 3 6 2	0 3 6 5	0 3 6 4	0 3 6 4	0 3 6 3	0 3 6 3	0 3 6 3	0 4 6 9	0 3 6 3	0 3 6 5			
Parathyroid Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Pituitary Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Thyroid Gland	+	+	+	+	+	+	A	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
GENERAL BODY SYSTEM																											
NONE																											
GENITAL SYSTEM																											
Coagulating Gland	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Epididymis	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Preputial Gland			+																								
Prostate, Dorsal/lateral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Prostate, Ventral Lobe	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Seminal Vesicle	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
Testes	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		
HEMATOPOIETIC SYSTEM																											
Bone Marrow	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+	+		

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

SPRAGUE DAWLEY (NCTR) RATS MALE F1 0.05 EE2 M	DAY ON TEST																									ANIMAL ID	males (cont...)
	0 3 6 3	0 3 6 3	0 3 6 2	0 3 6 2	0 1 6 9	0 3 6 2	0 3 4 7	0 3 6 0	0 3 6 2	0 3 6 2	0 3 6 4	0 3 6 2	0 3 6 2	0 3 6 3	0 3 6 2	0 3 6 5	0 3 6 4	0 3 6 4	0 3 6 3	0 3 6 3	0 3 6 4	0 3 6 9	0 3 6 3	0 3 6 5			
	0 1 0 0 1	0 1 0 0 2	0 1 0 1 1	0 1 0 1 2	0 1 0 2 1	0 1 0 2 2	0 3 1 6 1	0 3 1 7 2	0 3 1 8 1	0 3 1 8 2	0 3 1 8 2	0 3 1 8 2	0 5 3 3 1	0 5 3 3 2	0 5 3 3 1	0 5 3 3 2	0 5 4 4 1	0 5 4 4 2	0 7 3 3 1	0 7 3 3 2	0 7 3 6 1	0 9 1 6 1	0 9 1 9 2	0 9 2 9 0	0 9 2 9 1		

Lymph Node, Mandibular

+

Lymph Node, Mesenteric

+

Spleen

+ + + + + + A + + + + + + + + + + + + + + + + + +

Thymus

+ +

INTEGUMENTARY SYSTEM

Mammary Gland

+ +

Skin

+

MUSCULOSKELETAL SYSTEM

Bone, Femur

+ +

NERVOUS SYSTEM

Brain, Brain Stem

+ +

Brain, Cerebellum

+ +

Brain, Cerebrum

+ +

Nerve Trigeminal

+ +

Peripheral Nerve, Sciatic

+ +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 6 | 6 | 6 | 6 | 1 | 6 | 4 | 6 | 6 | 6 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 6 | | |
| | 3 | 3 | 2 | 2 | 9 | 2 | 7 | 0 | 2 | 2 | 4 | 2 | 2 | 2 | 3 | 2 | 5 | 4 | 4 | 3 | 3 | 3 | 9 | 3 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | | | |
| | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 9 | 9 | | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | + | + | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | + | + | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | + | + | |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | + | + | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | + | + | | | | | + | | | | | | | | | | | | + | | |
| Nose | | | | | | | + | + | | | | + | | | | | | | | | | | | + | | |
| Trachea | | | | | | | + | A | | | | + | | | | | | | | | | | | + | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | + | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 4 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 0 | |
| | | 2 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | | |
|------------------------|---|----|
| Esophagus | | 4 |
| Intestine Large, Colon | | 3 |
| Intestine Small, Ileum | | 3 |
| Liver | + | 26 |
| Pancreas | + | 26 |
| Stomach, Forestomach | | 4 |
| Stomach, Glandular | | 4 |

CARDIOVASCULAR SYSTEM

| | | |
|--------------|---|----|
| Blood Vessel | + | 26 |
| Heart | + | 26 |

ENDOCRINE SYSTEM

| | | |
|--------------------|---|----|
| Adrenal Cortex | + | 26 |
| Adrenal Medulla | + | 26 |
| Islets, Pancreatic | + | 26 |

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 + .. Tissue examined microscopically
 X .. Lesion present
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Experiment Number: 10034 - 03
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P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | | DAY ON TEST | ANIMAL ID | * TOTALS |
|---|---|-------------|-----------|----------|
| | | 0 | | |
| | | 3 | | |
| | | 6 | | |
| | | 4 | | |
| | | 0 | | |
| | | 9 | | |
| | | 2 | | |
| | | 0 | | |
| | | 2 | | |
| Parathyroid Gland | + | | | 26 |
| Pituitary Gland | + | | | 26 |
| Thyroid Gland | + | | | 25 |
| GENERAL BODY SYSTEM | | | | |
| NONE | | | | |
| GENITAL SYSTEM | | | | |
| Coagulating Gland | + | | | 26 |
| Epididymis | + | | | 26 |
| Preputial Gland | | | | 1 |
| Prostate, Dorsal/lateral Lobe | + | | | 26 |
| Prostate, Ventral Lobe | + | | | 26 |
| Seminal Vesicle | + | | | 26 |
| Testes | + | | | 26 |
| HEMATOPOIETIC SYSTEM | | | | |
| Bone Marrow | + | | | 26 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | | DAY ON TEST | ANIMAL ID | * TOTALS |
|---|---|-------------|-----------|----------|
| | | 0 | | |
| | | 3 | | |
| | | 6 | | |
| | | 4 | | |
| | | 0 | | |
| | | 9 | | |
| | | 2 | | |
| | | 0 | | |
| | | 2 | | |
| Lymph Node, Mandibular | | | | 1 |
| Lymph Node, Mesenteric | | | | 1 |
| Spleen | + | | | 25 |
| Thymus | + | | | 26 |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland | + | | | 26 |
| Skin | | | | 1 |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone, Femur | + | | | 26 |
| NERVOUS SYSTEM | | | | |
| Brain, Brain Stem | + | | | 26 |
| Brain, Cerebellum | + | | | 26 |
| Brain, Cerebrum | + | | | 26 |
| Nerve Trigeminal | | | | 2 |
| Peripheral Nerve, Sciatic | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | | DAY ON TEST | |
|---|--|-------------|-----------------|
| | | ANIMAL ID | |
| | | 0 | |
| | | 3 | |
| | | 6 | |
| | | 4 | |
| | | 0 | |
| | | 9 | |
| | | 2 | |
| | | 0 | |
| | | 2 | |
| | | | * TOTALS |
| Peripheral Nerve, Tibial | | | 2 |
| Spinal Cord, Cervical | | | 2 |
| Spinal Cord, Lumbar | | | 2 |
| Spinal Cord, Thoracic | | | 2 |
| RESPIRATORY SYSTEM | | | |
| Lung | | | 4 |
| Nose | | | 4 |
| Trachea | | | 3 |
| SPECIAL SENSES SYSTEM | | | |
| NONE | | | |
| URINARY SYSTEM | | | |
| Kidney | | + | 26 |
| Urinary Bladder | | | 1 |
| SYSTEMIC LESIONS | | | |
| Multiple Organ | | + | 26 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
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 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0363 | 0373 | 0363 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | | |
| | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | 0133 | |
| | 1111 | 1111 | 1111 | 1111 | 1111 | 1111 | 1222 | 1222 | 1222 | 1222 | 1233 | 1233 | 1244 | 1244 | 1244 | 1244 | 1244 | 1244 | 1244 | 1244 | 1244 | 1244 | 1244 | 1244 | 1244 | |
| | 2223 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | 2233 | |
| | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | 1221 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + |
| Ductus Deferens | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fat Pad, Epididymal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|--|----------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | 3 | 3 | | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 6 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 1 | 3 | 6 | 6 | 6 | 6 | | | |
| | | 3 | 7 | 3 | 3 | 3 | 3 | 2 | 2 | 4 | 4 | 4 | 3 | 3 | 3 | 2 | 2 | 6 | 8 | 5 | 2 | 1 | 5 | 3 | | |
| | F1 0.50 EE2 M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | |
| | | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 6 | 3 | 3 | 4 | 4 | 7 | 7 | 8 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

Peripheral Nerve, Tibial
 Spinal Cord, Cervical
 Spinal Cord, Lumbar
 Spinal Cord, Thoracic

+
 +
 +
 +

RESPIRATORY SYSTEM

Lung
 Nose
 Trachea

+ +
 + +
 + A

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney

+ + + + + + + + + + + + + + + + A + + + + + +

SYSTEMIC LESIONS

Multiple Organ
 Lymphoma Malignant

+ + + + + + + + + + X + + + + + + + + + + + +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 5 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | | |
|--------------------------|---|----|
| Esophagus | | 3 |
| Intestine Large, Colon | | 0 |
| Intestine Small, Ileum | | 0 |
| Intestine Small, Jejunum | | 1 |
| Liver | + | 26 |
| Pancreas | + | 25 |
| Stomach, Forestomach | | 3 |
| Stomach, Glandular | | 1 |

CARDIOVASCULAR SYSTEM

| | | |
|--------------|---|----|
| Blood Vessel | + | 26 |
| Heart | + | 26 |

ENDOCRINE SYSTEM

| | | |
|-----------------|---|----|
| Adrenal Cortex | + | 26 |
| Adrenal Medulla | + | 26 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | ANIMAL ID | |
|---|-------------|-----------|-----------------|
| | | | |
| | 0 | 0 | |
| | 3 | 9 | |
| | 6 | 2 | |
| | 5 | 8 | |
| | | 2 | |
| | | | * TOTALS |

| | | | |
|--------------------|---|--|-----------|
| Islets, Pancreatic | + | | 26 |
| Parathyroid Gland | + | | 26 |
| Pituitary Gland | + | | 26 |
| Thyroid Gland | + | | 24 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | |
|-------------------------------|---|--|-----------|
| Coagulating Gland | + | | 24 |
| Ductus Deferens | | | 1 |
| Epididymis | + | | 26 |
| Fat Pad, Epididymal | | | 1 |
| Preputial Gland | | | 2 |
| Prostate, Dorsal/lateral Lobe | + | | 26 |
| Prostate, Ventral Lobe | + | | 26 |
| Seminal Vesicle | + | | 24 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
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 1 Year Animals

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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | | DAY ON TEST | ANIMAL ID | |
|---|--|-------------|-----------|-----------------|
| | | 0 | | |
| | | 3 | | |
| | | 6 | | |
| | | 5 | | |
| | | 0 | | |
| | | 9 | | |
| | | 2 | | |
| | | 8 | | |
| | | 2 | | |
| | | | | * TOTALS |
| Testes | | + | | 25 |
| HEMATOPOIETIC SYSTEM | | | | |
| Bone Marrow | | + | | 26 |
| Spleen | | + | | 25 |
| Thymus | | + | | 24 |
| Lymphoma Malignant | | | | 1 |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland | | + | | 25 |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone, Femur | | + | | 26 |
| NERVOUS SYSTEM | | | | |
| Brain, Brain Stem | | + | | 26 |
| Brain, Cerebellum | | + | | 26 |
| Brain, Cerebrum | | + | | 26 |
| Nerve Trigeminal | | | | 1 |
| Peripheral Nerve, Sciatic | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | | DAY ON TEST | |
|---|--|-------------|-----------------|
| | | ANIMAL ID | |
| | | 0 | |
| | | 3 | |
| | | 6 | |
| | | 5 | |
| | | 0 | |
| | | 9 | |
| | | 2 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |
| Peripheral Nerve, Tibial | | | 1 |
| Spinal Cord, Cervical | | | 1 |
| Spinal Cord, Lumbar | | | 1 |
| Spinal Cord, Thoracic | | | 1 |
| RESPIRATORY SYSTEM | | | |
| Lung | | | 3 |
| Nose | | | 3 |
| Trachea | | | 2 |
| SPECIAL SENSES SYSTEM | | | |
| NONE | | | |
| URINARY SYSTEM | | | |
| Kidney | | + | 25 |
| SYSTEMIC LESIONS | | | |
| Multiple Organ | | + | 26 |
| Lymphoma Malignant | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh.StDose M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|---|
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | | 6 | 6 | 6 | 5 | 7 | 6 | 6 | 5 | 2 | 1 | 6 | 5 | 6 | 5 | 5 | 4 | 6 | 6 | 6 | 6 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | 9 | | |
| | | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 5 | 5 | 3 | 3 | | |
| | | 6 | 6 | 7 | 7 | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 5 | 5 | 9 | 9 | | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Hepatocellular Adenoma | | | | X | | | | | | | | | | | | | | | | | 1 |
| Mesentery | | | | | | | | | | | | | | | | + | + | | | | 2 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Pars Distalis, Adenoma | | | | | | | | | | | | | | | | X | | | | | 1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh.StDose M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 6 | 6 | 6 | 5 | 7 | 6 | 6 | 5 | 2 | 1 | 6 | 5 | 6 | 5 | 5 | 4 | 6 | 6 | 6 | 6 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | 9 | |
| | | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 5 | 5 | 3 | 3 | |
| | | 6 | 6 | 7 | 7 | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 5 | 5 | 9 | 9 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 19 |
| Skin | | | | | | | | | | | | | | | + | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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Experiment Number: 10034 - 03
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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh.StDose M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 6 | 6 | 6 | 5 | 7 | 6 | 6 | 5 | 2 | 1 | 6 | 5 | 6 | 5 | 4 | 6 | 6 | 6 | 6 | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | 9 |
| | | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 5 | 5 | 3 | 3 |
| | | 6 | 6 | 7 | 7 | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 5 | 5 | 9 | 9 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | |

Schwannoma Benign

X

1

MUSCULOSKELETAL SYSTEM

Bone, Femur

+ + + + + + + + + + + + + + + + + + + +

20

NERVOUS SYSTEM

Brain, Brain Stem

+ + + + + + + + + + + + + + + + + + + +

20

Brain, Cerebellum

+ + + + + + + + + + + + + + + + + + + +

20

Brain, Cerebrum

+ + + + + + + + + + + + + + + + + + + +

20

RESPIRATORY SYSTEM

Lung

+

1

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney

+ + + + + + + + + + + + + + + + + + + +

20

SYSTEMIC LESIONS

Multiple Organ

+ + + + + + + + + + + + + + + + + + + +

20

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|-----------|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 6 | 6 | 6 | 6 | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 6 | 5 | 5 | 5 | 5 | 5 | 4 | 7 | 2 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 6 | 6 | 5 | 5 | | | |
| | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 4 | 4 | 5 | 5 | 8 | 8 | 0 | 0 | | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | | |
| | | | | | | | | | | | | | | | | | | | | * TOTALS | | |

Pars Distalis, Adenoma

X

1

Thyroid Gland

+ + + + + + + + + + + + + + + + + + + +

20

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Coagulating Gland

+ + + + + + + + + + + + + + + + + + + +

20

Epididymis

+ + + + + + + + + + + + + + + + + + + +

20

Prostate, Dorsal/lateral Lobe

+ + + + + + + + + + + + + + + + + + + +

20

Prostate, Ventral Lobe

+ + + + + + + + + + + + + + + + + + + +

20

Seminal Vesicle

+ + + + + + + + + + + + + + + + + + + +

20

Testes

+ + + + + + + + + + + + + + + + + + + +

20

HEMATOPOIETIC SYSTEM

Bone Marrow

+ + + + + + + + + + + + + + + + + + + +

20

Leukemia Granulocytic

X

1

Lymph Node, Mesenteric

+

1

Spleen

+ + + + + + + + + + + + + + + + + + + +

20

Leukemia Granulocytic

X

1

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
3
6
6 | 0
3
6
6 | 0
3
6
6 | 0
3
6
5 | 0
3
6
5 | 0
3
6
4 | 0
3
6
4 | 0
3
6
4 | 0
3
6
5 | 0
3
6
4 | 0
3
6
5 | 0
3
6
5 | 0
3
6
5 | 0
3
6
5 | 0
3
6
5 | 0
3
6
4 | 0
3
6
7 | 0
3
6
7 | 0
3
6
9 | 0
3
6
9 | |
| ANIMAL ID | 0
1
4
2
1 | 0
1
4
2
2 | 0
1
4
3
1 | 0
1
4
3
2 | 0
1
4
4
1 | 0
1
4
4
2 | 0
3
4
8
1 | 0
3
4
8
2 | 0
3
5
8
1 | 0
3
5
9
2 | 0
3
5
9
0 | 0
3
6
7
2 | 0
3
6
7
4 | 0
5
7
7
1 | 0
5
7
7
2 | 0
5
7
7
1 | 0
5
6
5
1 | 0
7
6
8
2 | 0
7
6
8
1 | 0
9
5
0
2 | 0
9
5
0
2 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | | | | | | | | | | | | | | | | 1 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Leukemia Granulocytic | | | | | | | | | X | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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 Bisphenol A
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 1 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|-----------------|------|
| | 0366 | 0366 | 0365 | 0365 | 0366 | 0366 | 0366 | 0366 | 0365 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | | | 0366 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 151581 | |
| | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 151582 | |
| | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 8 | 8 | 8 | 8 | 8 | 151583 | |
| | 8 | 8 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 151584 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 151585 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 19 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
3
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5 | 0
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6 | 0
3
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5 | |
| ANIMAL ID | 0
1
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8
1 | 0
1
5
8
2 | 0
1
6
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1 | 0
1
6
0
2 | 0
3
7
4
1 | 0
3
7
4
2 | 0
3
7
5
1 | 0
3
7
5
2 | 0
3
7
6
1 | 0
3
7
6
2 | 0
5
9
0
1 | 0
5
9
0
1 | 0
5
9
1
1 | 0
5
9
1
2 | 0
5
9
2
1 | 0
5
9
2
2 | 0
7
8
2
1 | 0
7
8
2
2 | 0
7
8
2
3 | 0
7
8
1
2 | 0
7
8
3
2 |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Lymph Node, Mandibular | | | | | | | | + | | | | | | | | | | | | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | | | | | | | | | + | | | | | | | 1 |
| Nose | | | | | | | | | | | | | | + | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 6 | 6 | 5 | 5 | 6 | 6 | 6 | 5 | 6 | 5 | 6 | 2 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | | |
| | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 8 | 8 | 8 | 8 | | |
| | 8 | 8 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | * TOTALS | |

Trachea + 1

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney + 20

SYSTEMIC LESIONS

Multiple Organ + 20

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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 1 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 7 | 7 | 6 | 5 | 5 | 5 | 4 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 7 | 7 | 4 | 6 | 6 | 6 |
| | F1 250.0StDose M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 | 6 | 7 | 7 | 9 | 9 | 9 | 9 |
| | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 9 | 8 | 8 | 8 | 8 |
| | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 6 | 6 | 0 | 0 | 0 | 0 |
| | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| | | | | | | | | | | | | | | | | | | | * TOTALS | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | + | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Schwannoma Malignant | | | | | | | | | | | | | | | X | 1 | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Pars Distalis, Adenoma | | | | | | | | | | X | 1 | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 7 | 7 | 6 | 6 | 5 | 5 | 5 | 4 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 7 | 7 | 4 | 6 |
| | F1 250.0StDose M | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 | 6 | 7 | 7 | 9 | 9 | 9 |
| | | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 9 | 8 | 8 | 8 |
| | | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 6 | 6 | 0 | 0 | 0 |
| | | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Preputial Gland | | | + | | | | | | | | | | | | | | | | | 1 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 18 |
| Prostate, Ventral Lobe | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 18 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Lymph Node | | | | | + | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | | | | | + | | | | | | | | | | | | | | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
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RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
3
6
7 | 0
3
6
7 | 0
3
6
6 | 0
3
6
5 | 0
3
6
5 | 0
3
6
5 | 0
3
6
4 | 0
3
6
6 | 0
3
6
6 | 0
3
6
6 | 0
3
6
5 | 0
3
6
6 | 0
3
6
6 | 0
3
6
6 | 0
3
6
6 | 0
3
6
7 | 0
3
6
7 | 0
3
6
4 | | 0
3
6
6 |
| ANIMAL ID | 0
1
7
4
1 | 0
1
7
4
2 | 0
1
7
5
2 | 0
1
7
6
1 | 0
1
7
6
2 | 0
3
9
0
1 | 0
3
9
0
2 | 0
3
9
1
1 | 0
3
9
1
2 | 0
3
9
2
1 | 0
3
9
2
2 | 0
6
0
6
1 | 0
6
0
6
2 | 0
6
7
6
1 | 0
6
7
6
2 | 0
7
9
6
1 | 0
7
9
6
2 | 0
7
8
6
1 | 0
9
8
0
1 | 0
9
8
0
2 |

Thymus + + + + + + + + + + + + + + + + + + 19

INTEGUMENTARY SYSTEM

Mammary Gland + + + + + + + + + + + + + + + + + + 19
 Skin + + + + + + + + + + + + + + + + + + 3
 Subcutaneous Tissue, Lipoma X 1

MUSCULOSKELETAL SYSTEM

Bone, Femur + + + + + + + + + + + + + + + + + + 19

NERVOUS SYSTEM

Brain, Brain Stem + + + + + + + + + + + + + + + + + + 19
 Brain, Cerebellum + + + + + + + + + + + + + + + + + + 19
 Brain, Cerebrum + + + + + + + + + + + + + + + + + + 19

RESPIRATORY SYSTEM

NONE

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
|--|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | DAY ON TEST | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | | 7 | 7 | 6 | 6 | 5 | 5 | 5 | 4 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 7 | 7 | 4 | 6 | | |
| | F1 250.0StDose M | | | | | | | | | | | | | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 | 6 | 6 | 7 | 7 | 9 | 9 | | |
| | | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 9 | 8 | 8 | | | |
| | | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 6 | 6 | 0 | 0 | | | |
| | | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 6 | 5 | 4 | 4 | 4 | 3 | 7 | 6 | 7 | 6 | 5 | 5 | 7 | 6 | 6 | 6 | 5 | 5 | 6 | 6 | 6 |
| | F1 2500.StDose M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | |
| | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | |
| | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 0 | 0 | 0 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 19 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Pars Distalis, Adenoma | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | F1 2500.StDose M | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 6 | 5 | 4 | 4 | 4 | 3 | 7 | 6 | 7 | 6 | 5 | 5 | 7 | 6 | 6 | 6 | 5 | 5 | 6 | 6 | 6 | 6 |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 |
| | | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 0 | 0 | 0 | 0 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Fat Pad, Epididymal | | | | | | | | | | + | | | | | | | | | | | | | 1 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Lymph Node, Mandibular | + | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| DAY ON TEST | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| F1 2500.StDose M | | 6 | 5 | 4 | 4 | 4 | 3 | 7 | 6 | 7 | 6 | 5 | 5 | 7 | 6 | 6 | 6 | 5 | 5 | 6 | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 |
| | | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 0 | 0 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS |
| Mammary Gland | M M + + + + + + + + + + + + + + + + + + M | | | | | | | | | | | | | | | | | | | | 17 |
| Skin | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | 1 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | | | | | | | | | | | | | | | | | | | | 20 |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | | | | | | | | | | | | | | | | | | | | 20 |
| Brain, Cerebellum | + | | | | | | | | | | | | | | | | | | | | 20 |
| Brain, Cerebrum | + | | | | | | | | | | | | | | | | | | | | 20 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | | | | | | | | | | | | | | | | | | | | 20 |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 6 | 5 | 4 | 4 | 4 | 3 | 7 | 6 | 7 | 6 | 5 | 5 | 7 | 6 | 6 | 6 | 5 | 5 | 6 | 6 | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | |
| | | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 0 | 0 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. Ctrl F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|
| | 0363 | 0363 | 0362 | 0363 | 0363 | 0363 | 0362 | 0364 | 0363 | 0364 | 0363 | 0360 | 0363 | 0363 | 0364 | 0364 | 0361 | 0367 | 0365 | 0368 | | 0365 |
| ANIMAL ID | 00141 | 00111 | 00151 | 00111 | 00111 | 00233 | 00233 | 00233 | 00233 | 00233 | 00444 | 00444 | 00444 | 00444 | 00444 | 00666 | 00666 | 00666 | 00666 | 00888 | 00888 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Fat Pad, Ovarian/parametrial | | | | | | | | | | | | | | | | | | | | | | 1 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |
| Polyp Stromal | | X | | | | | | | | | | | | | | | | | | | | 1 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. Ctrl F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 3 | 3 | 3 | 2 | 3 | 3 | 2 | 4 | 3 | 4 | 3 | 0 | 3 | 3 | 4 | 4 | 1 | 7 | 5 | 8 | 5 | 6 | 6 | 6 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | |
| | | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 4 | 4 | 4 | 4 | | |
| | | 4 | 4 | 5 | 5 | 6 | 0 | 1 | 1 | 2 | 6 | 7 | 7 | 8 | 8 | 1 | 1 | 2 | 2 | 6 | 6 | 6 | 6 | 6 | | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Kidney | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Multiple Organ | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 3 | 3 | 3 | 2 | 3 | 1 | 3 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 9 | 7 | 2 | 1 | 5 | 6 | 6 |
| F1 2.5 BPA F | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 7 | 7 | 5 | 5 | 6 | 6 | 6 | 6 |
| | | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 4 | 4 | 6 | 6 | 9 | 9 | 0 | 0 | 0 | 0 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Ovary | + | | | | | | | | | | | | | | | | | | | | | | | 22 |
| Oviduct | + | | | | | | | | | | | | | | | | | | | | | | | 22 |
| Uterus | + | | | | | | | | | | | | | | | | | | | | | | | 22 |
| Vagina | + | | | | | | | | | | | | | | | | | | | | | | | 22 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | | | 22 |
| Lymph Node, Mandibular | + | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | | | 22 |
| Thymus | + | | | | | | | | | | | | | | | | | | | | | | | 22 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | | | 22 |
| Adenocarcinoma | X | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fibroadenoma | X | | | | | | | | | | | | | | | | | | | | | | | 3 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Bone | + | | | | | | | | | | | | | | | | | | | | | | | 1 |
|------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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| ANIMAL ID | 0
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2 | 0
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4
6
1 | 0
2
4
6
2 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | | | | | | | | | | | | | | | | + | | 1 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------------|---|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | | |
| | 3 | 3 | 3 | 1 | 5 | 4 | 1 | 1 | 4 | 2 | 4 | 3 | 2 | 3 | 4 | 2 | 4 | 4 | 3 | 4 | 4 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 8 | 8 | | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 9 | 7 | 7 | | |
| | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 3 | 3 | 3 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-----------|
| Esophagus | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Ileum | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 22 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | + | | | | | | | | | | | | | | | | | | + | | | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 22 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | 0 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-----------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 22 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 22 |
| | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-----------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 22 |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 22 |
| | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|---------|
| | 0363 | 0333 | 0363 | 0361 | 0354 | 0331 | 0331 | 0334 | 0332 | 0334 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | | 0333 |
| ANIMAL ID | 00461 | 00442 | 00441 | 00447 | 00448 | 00442 | 00446 | 00446 | 00446 | 00446 | 00446 | 00447 | 00447 | 00447 | 00447 | 00448 | 00448 | 00449 | 00449 | 00449 | 00449 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Parathyroid Gland | M | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | 20 |
| Pituitary Gland
Pars Distalis, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | 22
1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 21 |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | 1 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Oviduct | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 21 |
| Uterus
Polyp Stromal | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 21
1 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 21 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

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Bisphenol A

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|--|
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| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|----|
| Lymph Node | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Spleen | | | | | | | | | | | | | | | | | | | | | + | 22 |
| Thymus | | | | | | | | | | | | | | | | | | | | | + | 22 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|----|
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | + | 22 |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Fibroadenoma, Multiple | | | | | | | | | | | | | | | | | | | | | X | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|-------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|----|
| Bone, Femur | | | | | | | | | | | | | | | | | | | | | + | 22 |
|-------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|----|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|----|
| Brain, Brain Stem | | | | | | | | | | | | | | | | | | | | | + | 22 |
| Brain, Cerebellum | | | | | | | | | | | | | | | | | | | | | + | 22 |
| Brain, Cerebrum | | | | | | | | | | | | | | | | | | | | | + | 22 |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | + | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|----|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | |
| ANIMAL ID | 3 | 3 | 3 | 1 | 5 | 4 | 1 | 1 | 4 | 2 | 4 | 3 | 2 | 3 | 4 | 2 | 4 | 4 | 3 | 4 | 4 | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | 1 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Nose | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Trachea | | | | | | | | | | | | | | | | | | | | | | | 1 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | | | | | | | | | | | | | | | | | | | | | | 22 |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | | | | | | | | | | | | | | | | | | | | | | | 22 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0363 | 0362 | 0363 | 0363 | 0362 | 0365 | 0362 | 0362 | 0362 | 0361 | 0363 | 0363 | 0363 | 0362 | 0363 | 0363 | 0364 | 0363 | 0364 | 0364 | 0364 | 0364 | 0365 | 0367 | |
| ANIMAL ID | 00621 | 00662 | 00661 | 00663 | 00664 | 00661 | 00662 | 00667 | 00667 | 00668 | 00669 | 00660 | 00661 | 00662 | 00664 | 00664 | 00664 | 00669 | 00669 | 00666 | 00663 | 00663 | 00664 | 00667 | 00661 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Esophagus | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Intestine Large, Colon | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Intestine Small, Ileum | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|
| | 0363 | 0362 | 0363 | 0363 | 0362 | 0365 | 0362 | 0362 | 0362 | 0361 | 0363 | 0363 | 0363 | 0362 | 0363 | 0363 | 0364 | 0363 | 0364 | 0364 | 0364 | 0364 | 0362 | | 0363 |
| ANIMAL ID | 00621 | 00622 | 00631 | 00632 | 00641 | 00642 | 00681 | 00682 | 00691 | 00692 | 00693 | 00694 | 00695 | 00696 | 00697 | 00698 | 00699 | 00690 | 00693 | 00694 | 00697 | 00698 | 00697 | 00698 | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pars Distalis, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|--|
| | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | | 0363 | |
| ANIMAL ID | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | 00621 | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland
Fibroadenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24
1 | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | + | | | | | | | | | | + | | | | | | | | | + | 3 | | |
| Nose | | | | | | | | | | | | | | | | | | | | | | | | | + | 2 | |
| Trachea | | | | | | | | | | | | | | | | | | | | | | | | | + | 2 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 3 | 3 | 3 | 2 | 3 | 2 | 4 | 3 | 4 | 3 | 3 | 2 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | | |
| | | 7 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | | |
| | | 8 | 8 | 9 | 9 | 0 | 4 | 4 | 5 | 5 | 6 | 0 | 0 | 1 | 1 | 7 | 7 | 1 | 1 | | | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

GENERAL BODY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|-----------|--|
| | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
2 | 0
3
6
3 | 0
3
6
2 | 0
3
6
4 | 0
3
6
3 | 0
3
6
4 | 0
3
6
3 | 0
3
6
2 | 0
3
6
4 | 0
3
6
3 | 0
3
6
4 | 0
3
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4 | 0
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6
4 | 0
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6
4 | 0
3
6
4 | 0
3
6
4 | 0
3
6
2 | | |
| | 0
0
7
8
1 | 0
0
7
8
2 | 0
0
7
9
1 | 0
0
7
9
2 | 0
0
8
0
1 | 0
0
8
0
2 | 0
2
9
4
1 | 0
2
9
5
2 | 0
2
9
5
1 | 0
2
9
6
1 | 0
2
9
6
2 | 0
5
9
0
1 | 0
5
9
0
1 | 0
5
9
1
1 | 0
5
9
1
1 | 0
7
7
1
2 | 0
7
7
1
2 | 0
9
0
1
1 | 0
9
0
1
2 | | | |
| | * TOTALS | | | | | | | | | | | | | | | | | | | | | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-----------|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | + | + | | 2 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | 20 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | 20 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | 20 |
| Polyp Stromal | | | | | X | | | | | X | X | | | | | | | | | | | | | 3 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | 20 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|-----------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | 20 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | 20 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | 20 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|---|-----------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | 20 |
| Fibroadenoma | | X | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Skin | | | | | | | | | | | | | | | | | | | | | | | + | 1 |

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
| | 0363 | 0363 | 0363 | 0362 | 0363 | 0362 | 0364 | 0363 | 0364 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | | 0363 |
| ANIMAL ID | 00781 | 00777 | 00777 | 00777 | 00788 | 00788 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000 BPA F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 3 | 3 | 4 | 3 | 5 | 4 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | |
| | | 4 | 4 | 5 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 1 | 1 | 2 | 2 | 5 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Parathyroid Gland | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Follicular Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000 BPA F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| ANIMAL ID | 3 | 3 | 4 | 3 | 5 | 4 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | | |
| | 9 | 9 | 9 | 9 | 9 | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | | |
| | 4 | 4 | 5 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 1 | 1 | 2 | 2 | 5 | 5 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |

NONE

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|----------------------|
| | 0
3 | 0
3 | 0
3 | 0
3 | 0
2 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
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3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | | |
| | 6 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 1 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 3 | 3 | 2 | 2 | 8 | 2 | 3 | 2 | 6 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 5 | 4 | 3 | 2 | 3 | 3 | 4 | 3 | 4 | 3 | 4 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | | | |
| | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 9 | 9 | 0 | 0 | 3 | 3 | 3 | 4 | 4 | | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | | | | | + | | | | + | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Ileum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Forestomach | | | | | | + | | | | + | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | + | | | | A | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|
| | 0
3
6
3 | 0
3
6
3 | 0
3
6
2 | 0
3
6
2 | 0
2
5
8 | 0
3
6
2 | 0
3
6
3 | 0
3
6
2 | 0
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1 | 0
3
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6 | 0
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2 | 0
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3 | 0
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2 | 0
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2 | 0
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1 | 0
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5 | 0
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4 | 0
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3 | 0
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2 | 0
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3 | 0
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4 | 0
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3 | 0
3
6
4 | | |
| | 0
1
0
6
1 | 0
1
0
6
2 | 0
1
0
7
1 | 0
1
0
7
2 | 0
1
0
8
1 | 0
1
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8
2 | 0
3
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1 | 0
3
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2
2 | 0
3
0
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3 | 0
3
0
3
1 | 0
3
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4
2 | 0
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0
4
1 | 0
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2 | 0
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1 | 0
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9
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7
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9
2 | 0
7
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9
1 | 0
7
0
9
2 | 0
7
0
9
1 | 0
9
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3
1 | 0
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2 | 0
9
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1 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pituitary Gland
Pars Distalis, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Clitoral Gland | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat Pad, Ovarian/parametrial | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Oviduct | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Uterus
Polyp Stromal | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Vagina | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|
| | 0
3
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3 | 0
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2
5
8 | 0
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6
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1 | 0
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1 | 0
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5 | 0
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3 | 0
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4 | 0
3
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3 | 0
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4 | | |
| | 0
1
0
6
1 | 0
1
0
6
2 | 0
1
0
7
1 | 0
1
0
7
2 | 0
1
0
8
1 | 0
1
0
8
2 | 0
3
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2
2 | 0
3
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2
2 | 0
3
0
3
1 | 0
3
0
3
2 | 0
3
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4
1 | 0
3
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4
2 | 0
5
0
8
1 | 0
5
0
8
2 | 0
5
0
9
1 | 0
5
0
9
2 | 0
5
0
0
1 | 0
5
0
0
2 | 0
7
0
3
1 | 0
7
0
3
2 | 0
7
0
4
1 | 0
7
0
4
2 | 0
9
0
3
1 | 0
9
0
3
2 | 0
9
0
4
1 | 0
9
0
4
2 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymph Node, Mandibular | | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenocarcinoma | | | | | X | | | | | | | | | | | | | | | | | | | | | | |
| Adenosquamous Carcinoma | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | | | | X | | | | | | | | | | | | | | | | | | | | X | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Nerve Trigeminal | | + | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Peripheral Nerve, Sciatic | | + | | | | | | | | | | | | | | | | | | | | | | | | | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|
| | 0
3
6
3 | 0
3
6
3 | 0
3
6
2 | 0
3
6
2 | 0
2
5
8 | 0
3
6
2 | 0
3
6
3 | 0
3
6
2 | 0
3
6
1 | 0
3
6
6 | 0
3
6
2 | 0
3
6
3 | 0
3
6
2 | 0
3
6
2 | 0
3
6
2 | 0
3
6
1 | 0
3
6
5 | 0
3
6
4 | 0
3
6
3 | 0
3
6
2 | 0
3
6
3 | 0
3
6
4 | 0
3
6
3 | 0
3
6
4 | | | |
| | 0
1
0
6
1 | 0
1
0
6
2 | 0
1
0
7
1 | 0
1
0
7
2 | 0
1
0
8
1 | 0
1
0
8
2 | 0
3
0
2
2 | 0
3
0
2
2 | 0
3
0
3
1 | 0
3
0
3
2 | 0
3
0
4
1 | 0
3
0
4
2 | 0
5
0
5
1 | 0
5
0
5
2 | 0
5
0
5
1 | 0
5
0
5
2 | 0
5
0
7
1 | 0
5
0
7
2 | 0
5
0
7
1 | 0
5
0
7
2 | 0
7
0
9
1 | 0
7
0
9
2 | 0
7
0
3
1 | 0
7
0
3
2 | 0
9
0
3
1 | 0
9
0
3
2 | |

Peripheral Nerve, Tibial
 Spinal Cord, Cervical
 Spinal Cord, Lumbar
 Spinal Cord, Thoracic

+
 +
 +
 +

RESPIRATORY SYSTEM

Lung
 Nose
 Trachea

+
 +
 +

SPECIAL SENSES SYSTEM

Eye

+

URINARY SYSTEM

Kidney

+ +

SYSTEMIC LESIONS

Multiple Organ

+ +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 3 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 4 | |
| | | 2 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | | |
|------------------------|---|----|
| Esophagus | | 2 |
| Intestine Large, Colon | | 1 |
| Intestine Small, Ileum | | 1 |
| Liver | + | 26 |
| Mesentery | | 1 |
| Pancreas | + | 26 |
| Stomach, Forestomach | | 2 |
| Stomach, Glandular | | 1 |

CARDIOVASCULAR SYSTEM

| | | |
|--------------|---|----|
| Blood Vessel | + | 26 |
| Heart | + | 26 |

ENDOCRINE SYSTEM

| | | |
|-----------------|---|----|
| Adrenal Cortex | + | 26 |
| Adrenal Medulla | + | 26 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | ANIMAL ID | * TOTALS |
|---|-------------|-----------|----------|
| | 0 | 0 | |
| | 3 | 9 | |
| | 6 | 2 | |
| | 3 | 4 | |
| | | 2 | |

| | | | |
|------------------------|---|--|----|
| Islets, Pancreatic | + | | 26 |
| Parathyroid Gland | + | | 26 |
| Pituitary Gland | + | | 25 |
| Pars Distalis, Adenoma | | | 1 |
| Thyroid Gland | + | | 26 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | |
|------------------------------|---|--|----|
| Clitoral Gland | | | 1 |
| Fat Pad, Ovarian/parametrial | | | 1 |
| Ovary | + | | 25 |
| Oviduct | + | | 25 |
| Uterus | + | | 25 |
| Polyp Stromal | | | 1 |
| Vagina | + | | 25 |

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | | DAY ON TEST | ANIMAL ID | * TOTALS |
|---|---|-------------|-----------|----------|
| | | 0 | | |
| | | 3 | | |
| | | 6 | | |
| | | 3 | | |
| | | 0 | | |
| | | 9 | | |
| | | 2 | | |
| | | 4 | | |
| | | 2 | | |
| Bone Marrow | + | | | 26 |
| Lymph Node, Mandibular | | | | 1 |
| Spleen | + | | | 26 |
| Thymus | + | | | 25 |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland | + | | | 26 |
| Adenocarcinoma | | | | 1 |
| Adenosquamous Carcinoma | | | | 1 |
| Fibroadenoma | | | | 2 |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone, Femur | + | | | 26 |
| NERVOUS SYSTEM | | | | |
| Brain, Brain Stem | + | | | 26 |
| Brain, Cerebellum | + | | | 26 |
| Brain, Cerebrum | + | | | 26 |
| Nerve Trigeminal | | | | 2 |
| Peripheral Nerve, Sciatic | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | | DAY ON TEST | |
|---|--|-------------|-----------------|
| | | ANIMAL ID | |
| | | 0 | |
| | | 3 | |
| | | 6 | |
| | | 3 | |
| | | 0 | |
| | | 9 | |
| | | 2 | |
| | | 4 | |
| | | 2 | |
| | | | * TOTALS |
| Peripheral Nerve, Tibial | | | 2 |
| Spinal Cord, Cervical | | | 2 |
| Spinal Cord, Lumbar | | | 2 |
| Spinal Cord, Thoracic | | | 2 |
| RESPIRATORY SYSTEM | | | |
| Lung | | | 2 |
| Nose | | | 1 |
| Trachea | | | 2 |
| SPECIAL SENSES SYSTEM | | | |
| Eye | | | 1 |
| URINARY SYSTEM | | | |
| Kidney | | + | 26 |
| SYSTEMIC LESIONS | | | |
| Multiple Organ | | + | 26 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 3 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 4 | 4 | 5 | 4 | 3 | 3 | 3 | 2 | 2 | 1 | 4 | 4 | 3 | 3 | 5 | 3 | 5 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | |
| | | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | |
| | | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 6 | 0 | 1 | 1 | 2 | 2 | 7 | 7 | 8 | 8 | 1 | 1 | 1 | 2 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |

Bone, Femur +

NERVOUS SYSTEM

Brain, Brain Stem +

Brain, Cerebellum +

Brain, Cerebrum +

Nerve Trigeminal +

Peripheral Nerve, Sciatic +

Peripheral Nerve, Tibial +

Spinal Cord, Cervical +

Spinal Cord, Lumbar +

Spinal Cord, Thoracic +

RESPIRATORY SYSTEM

Lung +

SPECIAL SENSES SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|-----------------------|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | 0
3
6
6 | |
| | ANIMAL ID | 0
9
3
2
2 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | | |
|------------------------|---|----|
| Intestine Large, Cecum | | 1 |
| Liver | + | 26 |
| Mesentery | | 2 |
| Pancreas | + | 26 |

CARDIOVASCULAR SYSTEM

| | | |
|--------------|---|----|
| Blood Vessel | + | 26 |
| Heart | + | 26 |

ENDOCRINE SYSTEM

| | | |
|------------------------|---|----|
| Adrenal Cortex | + | 26 |
| Adrenal Medulla | + | 26 |
| Islets, Pancreatic | + | 26 |
| Parathyroid Gland | + | 25 |
| Pituitary Gland | + | 26 |
| Pars Distalis, Adenoma | | 1 |
| Thyroid Gland | + | 26 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 6 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 3 | |
| | | 2 | |
| | | 2 | |
| | | | * TOTALS |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | |
|---------|---|----|
| Ovary | + | 26 |
| Oviduct | + | 26 |
| Uterus | + | 26 |
| Vagina | + | 26 |

HEMATOPOIETIC SYSTEM

| | | |
|------------------------|---|----|
| Bone Marrow | + | 26 |
| Lymph Node, Mandibular | | 1 |
| Spleen | + | 26 |
| Thymus | + | 26 |

INTEGUMENTARY SYSTEM

| | | |
|---------------|---|----|
| Mammary Gland | + | 26 |
| Fibroadenoma | X | 4 |

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | | DAY ON TEST | ANIMAL ID | | |
|---|--|-------------|-----------|---|-----------------|
| | | 0 | 0 | | |
| | | 3 | 9 | | |
| | | 6 | 3 | | |
| | | 6 | 2 | | |
| | | | 2 | | |
| | | | | | * TOTALS |
| Bone, Femur | | | | + | 26 |
| NERVOUS SYSTEM | | | | | |
| Brain, Brain Stem | | | | + | 26 |
| Brain, Cerebellum | | | | + | 26 |
| Brain, Cerebrum | | | | + | 26 |
| Nerve Trigeminal | | | | + | 4 |
| Peripheral Nerve, Sciatic | | | | + | 4 |
| Peripheral Nerve, Tibial | | | | + | 4 |
| Spinal Cord, Cervical | | | | + | 4 |
| Spinal Cord, Lumbar | | | | + | 4 |
| Spinal Cord, Thoracic | | | | + | 4 |
| RESPIRATORY SYSTEM | | | | | |
| Lung | | | | | 1 |
| SPECIAL SENSES SYSTEM | | | | | |
| NONE | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 6 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 3 | |
| | | 2 | |
| | | 2 | |
| | | | * TOTALS |

URINARY SYSTEM

| | | |
|--------|---|-----------|
| Kidney | + | 26 |
|--------|---|-----------|

SYSTEMIC LESIONS

| | | |
|----------------|---|-----------|
| Multiple Organ | + | 26 |
|----------------|---|-----------|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 5 | 4 | 5 | 4 | 6 | 6 | 4 | 2 | 7 | 6 | 7 | 7 | 5 | 5 | 5 | 4 | 3 | 3 | 6 | 6 | 6 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | |
| | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 4 | 4 | 4 | 4 | |
| | 5 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 2 | 2 | 5 | 5 | 6 | 6 | 6 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Mesentery | + | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 5 | 4 | 5 | 4 | 6 | 6 | 4 | 2 | 7 | 6 | 7 | 7 | 5 | 5 | 5 | 4 | 3 | 3 | 6 | 6 | 6 | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 |
| | | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 5 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 2 | 2 | 5 | 5 | 6 | 6 | 6 | 6 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Fibroadenoma | | | | X | | | | | | X | | X | | | | | | | X | | | | 4 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

NERVOUS SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|
| | 0
3
6
5 | 0
3
6
4 | 0
3
6
5 | 0
3
6
4 | 0
3
6
6 | 0
3
6
6 | 0
3
6
4 | 0
3
6
2 | 0
3
6
7 | 0
3
6
6 | 0
3
6
7 | 0
3
6
7 | 0
3
6
5 | 0
3
6
5 | 0
3
6
4 | 0
3
6
3 | 0
3
6
3 | 0
3
6
6 | 0
3
6
6 | | |
| ANIMAL ID | 0
1
3
5
1 | 0
1
3
5
2 | 0
1
3
6
1 | 0
1
3
6
2 | 0
3
5
0
1 | 0
3
5
0
2 | 0
3
5
1
1 | 0
3
5
1
2 | 0
3
5
2
1 | 0
3
5
2
2 | 0
3
5
6
6 | 0
3
5
6
7 | 0
3
5
6
7 | 0
3
5
6
7 | 0
3
5
6
2 | 0
3
5
6
2 | 0
3
5
6
1 | 0
3
5
6
2 | 0
3
5
6
1 | 0
3
5
6
2 | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | | | | | | | | | | | | | | + | 1 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | + | 1 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | F1 2.5 StDose F | 6 | 6 | 6 | 6 | 5 | 5 | 7 | 6 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 0 | 4 | 4 | 2 | 2 | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | 9 | 9 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 6 | 6 | 9 | 9 |
| | | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 6 | 6 | 9 | 9 | 9 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Clitoral Gland | + | | | | | | | | | | | | | | | | | | | | | | 1 |
| Ovary | + | | | | | | | | | | | | | | | | | | | | | | 22 |
| Oviduct | + | | | | | | | | | | | | | | | | | | | | | | 22 |
| Uterus | + | | | | | | | | | | | | | | | | | | | | | | 22 |
| Polyp Stromal | X | | | | | | | | | | | | | | | | | | | | | | 1 |
| Vagina | + | | | | | | | | | | | | | | | | | | | | | | 22 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | | 22 |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | | 22 |
| Thymus | + | | | | | | | | | | | | | | | | | | | | | | 22 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | | 22 |
| Fibroadenoma | X | | | | | | | | | | | | | | | | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Bone, Femur | + | | | | | | | | | | | | | | | | | | | | | | 22 |
|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | F1 25.0 StDose F | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 7 | 6 | 6 | 6 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 5 | 4 | 4 | 4 | 6 | 5 | 6 | 6 | 5 | 5 | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 8 | 8 | 9 | 9 | 9 | 7 | 7 | 7 |
| | | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 3 | 3 | 3 | 3 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Fibroadenoma | | | | | | | X | | | | | | | | | | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

NERVOUS SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
3
6
7 | 0
3
6
6 | 0
3
6
6 | 0
3
6
5 | 0
3
6
5 | 0
3
6
5 | 0
3
6
6 | 0
3
6
6 | 0
3
6
6 | 0
3
6
6 | 0
3
6
6 | 0
3
6
5 | 0
3
6
4 | 0
3
6
4 | 0
3
6
4 | 0
3
6
6 | 0
3
6
5 | 0
3
6
6 | 0
3
6
6 | 0
3
6
5 | |
| ANIMAL ID | 0
1
6
6
1 | 0
1
6
6
2 | 0
1
6
7
1 | 0
1
6
7
2 | 0
1
6
8
1 | 0
1
6
8
2 | 0
3
8
2
1 | 0
3
8
2
2 | 0
3
8
3
1 | 0
3
8
3
2 | 0
3
8
4
1 | 0
3
8
4
2 | 0
5
9
4
1 | 0
5
9
4
2 | 0
7
8
9
1 | 0
7
8
9
2 | 0
7
9
9
1 | 0
7
9
9
1 | 0
7
9
0
2 | 0
9
7
0
1 | 0
9
3
3
2 |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | | | | | | | | | | | | | | | + | 1 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
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 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | | 6 | 6 | 5 | 4 | 6 | 6 | 4 | 4 | 5 | 4 | 5 | 3 | 6 | 6 | 7 | 6 | 5 | 5 | 5 | 5 | 6 | 6 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | | |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 8 | 8 | 8 | 8 | | |
| | | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 3 | 3 | 4 | 4 | 8 | 8 | 7 | 7 | | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | 1 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Parathyroid Gland
Adenoma | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | 22
1 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|
| | 0366 | 0366 | 0365 | 0364 | 0366 | 0366 | 0364 | 0364 | 0365 | 0364 | 0365 | 0363 | 0366 | 0366 | 0367 | 0366 | 0365 | 0365 | 0365 | 0366 | | 0366 |
| ANIMAL ID | 01821 | 01822 | 01831 | 01842 | 01881 | 01882 | 01891 | 01892 | 01899 | 01900 | 01901 | 01904 | 01906 | 01908 | 01908 | 01908 | 01908 | 01908 | 01908 | 01909 | 01909 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | |
| | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 8 | 8 | 8 | |
| | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 4 | 4 | 3 | 3 | 4 | 4 | 8 | 8 | 8 | 7 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Polyp Stromal | X | | | | | | | | | | | | | | | | | | | | | 1 |
| Endometrium, Adenoma | | X | | | | | | | | | | | | | | | | | | | | 1 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Lymph Node, Mandibular | | | + | | | | | | | | | | | | | | | | | | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Fibroadenoma | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Skin | | | | + | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 6 | 6 | 5 | 4 | 6 | 6 | 4 | 4 | 5 | 4 | 5 | 3 | 6 | 6 | 7 | 6 | 5 | 5 | 5 | 5 | 6 | 6 | 6 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 8 | 8 | 8 | 8 | 8 |
| | | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 3 | 3 | 4 | 4 | 8 | 8 | 7 | 7 | 7 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

Zymbal's Gland
Carcinoma

+
X

1
1

URINARY SYSTEM

Kidney

+ +

22

SYSTEMIC LESIONS

Multiple Organ

+ +

22

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|---|
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | | 6 | 4 | 5 | 4 | 6 | 6 | 4 | 4 | 4 | 3 | 6 | 6 | 5 | 5 | 4 | 3 | 6 | 7 | 4 | 4 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | | | |
| | | 1 | 1 | 1 | 1 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 8 | 8 | 0 | 0 | | | |
| | | 9 | 9 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 1 | 1 | 0 | 0 | | | |
| | | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 0 | 1 | 1 | 7 | 7 | 1 | 1 | | | | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | | | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

Fibroadenoma

X

1

MUSCULOSKELETAL SYSTEM

Bone, Femur

+ + + + + + + + + + + + + + + + + + +

20

NERVOUS SYSTEM

Brain, Brain Stem

+ + + + + + + + + + + + + + + + + + +

20

Brain, Cerebellum

+ + + + + + + + + + + + + + + + + + +

20

Brain, Cerebrum

+ + + + + + + + + + + + + + + + + + +

20

RESPIRATORY SYSTEM

NONE

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney

+ + + + + + + + + + + + + + + + + + +

20

SYSTEMIC LESIONS

Multiple Organ

+ + + + + + + + + + + + + + + + + + +

20

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
3
6
6 | 0
3
6
6 | 0
3
6
6 | 0
3
6
5 | 0
3
6
5 | 0
3
6
5 | 0
3
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6 | 0
3
6
5 | 0
3
6
6 | 0
3
6
4 | 0
3
6
4 | 0
3
6
3 | 0
3
6
3 | 0
2
5
6 | 0
3
6
4 | 0
3
6
4 | 0
3
6
4 | 0
3
6
3 | 0
0
4
5 | 0
3
6
5 | | 0
3
6
5 |
| ANIMAL ID | 0
2
1
4
1 | 0
2
1
4
2 | 0
2
1
5
1 | 0
2
1
5
1 | 0
2
1
6
2 | 0
2
4
0
1 | 0
4
3
0
2 | 0
4
3
1
2 | 0
4
3
1
2 | 0
4
3
1
2 | 0
4
3
2
1 | 0
4
3
2
2 | 0
6
4
6
1 | 0
6
4
7
2 | 0
6
4
7
1 | 0
6
4
7
2 | 0
6
4
8
1 | 0
6
4
8
2 | 0
8
3
1
2 | 0
8
3
1
2 | 0
8
3
2
1 | 0
8
3
2
2 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Schwannoma Malignant, Metastatic, Tissue Nos | | | | | | | | | | | | | | X | | | | | | | | 1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | 1 |
| Schwannoma Malignant | | | | | | | | | | | | | | X | | | | | | | | 1 |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Fat Pad, Ovarian/parametrial | | | | | | | | | | | | | | | | | | | | | | 1 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 03
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 Bisphenol A
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
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3
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6 | 0
3
6
5 | 0
3
6
5 | |
| ANIMAL ID | 0
2
1
4
1 | 0
2
1
4
2 | 0
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1
5
1 | 0
2
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5
2 | 0
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6
1 | 0
2
4
6
2 | 0
2
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1 | 0
2
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4
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1 | 0
2
4
1
2 | 0
2
4
1
2 | 0
2
4
2
2 | 0
2
4
6
6 | 0
2
4
6
6 | 0
2
4
6
7 | 0
2
4
6
8 | 0
2
4
6
8 | 0
2
4
6
8 | 0
2
4
6
8 | 0
2
4
6
8 | 0
2
4
6
8 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland
Fibroadenoma | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | X | + | + | + | + | 22
2 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Skeletal Muscle | | | | | | | | | | | | | | + | | | | + | | | 2 |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem
Meningioma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | 22
1 |
| Brain, Cerebellum
Meningioma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | 22
1 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Nerve Trigeminal | | | | | | | | | | | | | | | + | | | + | | | 2 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | + | | | + | | | 2 |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | + | | | + | | | 2 |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | + | | | + | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
Bisphenol A
CAS Number: 80-05-7
2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

NTP Study Number: C10034
Lock Date: 08/16/2017
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: 09/29/2017

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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Date Report Requested: 08/16/2017
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 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------------------------------|
| SPRAGUE DAWLEY (NCTR)
 RATS MALE

F1 Veh. Ctrl M | DAY ON TEST | 0550 | 0727 | 0725 | 0728 | 0727 | 0727 | 0722 | 0722 | 0727 | 0544 | 0692 | 0073 | 0053 | 0057 | 0055 | 0066 | 0078 | 0072 | 0078 | 0046 | 0064 | 0068 | 0057 | 0072 | males
 (cont...) |
| | ANIMAL ID | 0001 | 0002 | 0001 | 0002 | 0003 | 0004 | 0002 | 0004 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 | 0003 | 0003 | 0004 | 0001 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | | + | + | + | + | + | + | + | + | | + | + | + | | + | + | + | + | | | | | |
| Intestine Large, Colon
Adenocarcinoma
Leukemia Granulocytic | A | A | | + | + | + | A | + | + | + | + | | + | + | + | | + | + | A | + | | | | | |
| Intestine Small, Ileum
Leukemia Granulocytic | A | A | | + | + | + | A | + | + | + | + | | + | + | + | | A | + | A | + | | | | | |
| Liver
Hepatocellular Adenoma
Histiocytic Sarcoma
Leukemia Granulocytic
Leukemia Mononuclear
Lymphoma Malignant | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Oral Mucosa
Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas
Histiocytic Sarcoma
Leukemia Granulocytic
Leukemia Mononuclear
Lymphoma Malignant
Acinar Cell, Adenoma | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | |
|------------------------------------|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------------|-----|-----|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 050 | 072 | 075 | 078 | 077 | 077 | 077 | 054 | 069 | 007 | 005 | 005 | 006 | 007 | 006 | 005 | 007 | 004 | 006 | 006 | | 005 | 007 |
| F1 Veh. Ctrl M | | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 004 | | 004 | 004 |
| ANIMAL ID | | 001 | 002 | 001 | 002 | 003 | 004 | 002 | 001 | 005 | 005 | 007 | 008 | 008 | 009 | 002 | 001 | 002 | 001 | 002 | 003 | 003 | 004 | 005 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|---|--|--|---|--|---|---|---|---|---|---|---|--|---|---|---|--|--|---|---|---|---|
| Stomach, Forestomach
Squamous Cell Papilloma | + | | + | | | + | | + | + | + | + | + | + | + | | + | + | + | | | + | + | + | + |
| Stomach, Glandular | + | | + | | | + | | + | + | + | + | + | + | + | | + | + | + | | | A | + | A | + |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | X | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pheochromocytoma Benign | | X | X | | | | | | | | | | | | | | | | | | | | | |
| Pheochromocytoma Malignant | | | | | | | X | | | | | | | | | | | | | | | | | |
| Bilateral, Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | X | | | | | | | | | | | | | | | | | | | | | | |
| Histiocytic Sarcoma | | | | | | | | X | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | | |
|--|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | | 050 | 072 | 075 | 078 | 077 | 077 | 077 | 054 | 062 | 063 | 053 | 057 | 057 | 066 | 078 | 063 | 052 | 055 | 072 | 072 | 048 | 064 | 067 | 058 | | 072 | 078 |
| ANIMAL ID | | 00011 | 00012 | 00021 | 00031 | 00032 | 00041 | 00042 | 00051 | 00052 | 00061 | 00062 | 00071 | 00072 | 00081 | 00082 | 00091 | 00092 | 00101 | 00102 | 00111 | 00112 | 00121 | 00122 | 00131 | | 00132 | 00141 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Parathyroid Gland | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | X | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Adenoma | X | X | X | | | X | X | | X | | | X | | X | | X | | | X | | | X | | | X | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Tissue NOS | + | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Sarcoma | X | | | | | | | | | | | | | | | | | | | | | | | | | | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bulbourethral Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Coagulating Gland | A | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Histiocytic Sarcoma | | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Histiocytic Sarcoma | | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat Pad, Epididymal | | | | | | | | | | + | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | | | | | |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| | 050 | 072 | 075 | 078 | 077 | 077 | 077 | 077 | 054 | 062 | 063 | 055 | 055 | 055 | 066 | 077 | 066 | 055 | 055 | 072 | | 072 | 046 | 064 | 066 | 067 | 058 | 072 | 078 |
| | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | | 002 | 002 | 004 | 004 | 004 | 004 | 004 | 004 |
| ANIMAL ID | 001 | 002 | 001 | 002 | 003 | 003 | 004 | 004 | 005 | 005 | 007 | 007 | 008 | 008 | 009 | 009 | 009 | 009 | 009 | 009 | 009 | 009 | 009 | 009 | 009 | 009 | 009 | 009 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|---|--|---|--|---|--|--|--|--|--|---|
| Preputial Gland Carcinoma | + | | | | | | + | | | | | | | | | | | | + | | | | + | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | X | | X | | | | | | | | |
| Bilateral, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Dorsal/lateral Lobe | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Ventral Lobe | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Seminal Vesicle | A | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Testes | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Mediastinal, Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | | | | | |
|--|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|--------------------|-----|-----|-----|-----|-----|-----|-----|-----|
| | | 050 | 072 | 075 | 078 | 077 | 077 | 077 | 077 | 054 | 062 | 063 | 053 | 053 | 055 | 056 | 067 | 066 | 051 | 055 | 072 | | | 072 | 046 | 064 | 067 | 068 | 052 | 078 | 078 |
| Spinal Cord, Lumbar | | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | + | + |
| Spinal Cord, Thoracic | | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | + | + |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | + | | + | | | | | | + | + | + | + | + | + | + | | | + | + | + | | | | | | | | | | |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | | + | | + | | | | | | | + | + | A | + | + | + | + | | | + | + | + | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | | + | | + | | | | | | | | + | + | A | + | + | + | + | | | + | + | + | | | | | | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | 050 | 072 | 077 | 078 | 077 | 077 | 077 | 054 | 069 | 007 | 005 | 005 | 006 | 007 | 006 | 005 | 005 | 007 | 004 | 006 | 006 | 005 | 007 |
| | ANIMAL ID | 00011 | 00012 | 00021 | 00022 | 00031 | 00032 | 00041 | 00042 | 00051 | 00052 | 00061 | 00062 | 00071 | 00072 | 00081 | 00082 | 00091 | 00092 | 00101 | 00102 | 00111 | 00112 | 00121 |

males (cont...)

Leukemia Granulocytic
Leukemia Mononuclear
Lipoma
Lymphoma Malignant

X

Urinary Bladder

+

+

SYSTEMIC LESIONS

Multiple Organ
Histiocytic Sarcoma
Leukemia Granulocytic
Leukemia Mononuclear
Lymphoma Malignant

+ + + + + + + + X + + + + + + + + + + + + + + +

X

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-----------------------|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|----|
| | | 07 | 04 | 05 | 05 | 07 | 07 | 07 | 02 | 04 | 07 | 07 | 07 | 06 | 07 | 07 | 06 | 06 | 04 | 05 | 06 | | 07 | 06 | 04 | 02 |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 2 | 8 | 2 | 6 | 2 | 2 | 2 | 2 | 2 | 1 | 0 | 3 | 2 | 2 | 1 | 7 | 5 | 9 | 5 | 2 | 2 | 3 | 9 | 8 | 0 |
| | F1 Veh. Ctrl M | 1 | 7 | 7 | 0 | 8 | 8 | 8 | 6 | 6 | 7 | 0 | 7 | 7 | 7 | 8 | 7 | 5 | 5 | 3 | 3 | 7 | 4 | 5 | 5 | 4 |
| | ANIMAL ID | 04 | 04 | 04 | 04 | 04 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 |
| | | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 7 | 7 | 7 |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | 35 |
| Intestine Large, Colon | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | 29 |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Small, Ileum | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | 26 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Acinar Cell, Adenoma | | | X | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|
| | 0721 | 0487 | 0527 | 0560 | 0728 | 0778 | 0778 | 0226 | 0426 | 0770 | 0770 | 0770 | 0637 | 0728 | 0728 | 0617 | 0665 | 0495 | 0569 | 0623 | | 0727 | 0664 | 0495 | 0285 | 0260 | 0604 |
| ANIMAL ID | 04352 | 04361 | 04362 | 04363 | 04364 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 |
| Stomach, Forestomach | + | + | + | + | | + | | + | + | | + | + | + | | | + | + | + | + | + | | + | + | + | + | | 36 |
| Squamous Cell Papilloma | | | | | | X | | | | | | | | | | | | | | | | | | | | | 2 |
| Stomach, Glandular | + | + | + | + | | + | | + | + | | + | + | + | | | + | + | + | + | + | | + | + | + | + | | 34 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Bilateral, Pheochromocytoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|------|
| | 0721 | 0487 | 0527 | 0560 | 0728 | 0778 | 0778 | 0226 | 0446 | 0770 | 0770 | 0770 | 0637 | 0778 | 0667 | 0459 | 0563 | 0677 | 0664 | 0425 | | 0639 | 0680 | 0604 |
| ANIMAL ID | 04352 | 04332 | 04332 | 04331 | 04372 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Pituitary Gland | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Granulocytic | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | | X | | | | | | 2 |
| Pars Distalis, Adenoma | X | | | | | | | | X | | | X | X | X | X | | X | | X | X | X | | | 21 |
| Thyroid Gland | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 46 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | X | | | | | | | 1 |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Bulbourethral Gland | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 47 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | | X | | | | | | 2 |
| Fat Pad, Epididymal | | | | | | | | | | | | | | | | | | | | | | + | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|------|
| | 0721 | 0487 | 0527 | 0560 | 0728 | 0778 | 0778 | 0226 | 0426 | 0770 | 0770 | 0770 | 0677 | 0772 | 0772 | 0628 | 0667 | 0495 | 0663 | 0727 | | 0664 | 0425 | 0288 | 0604 |
| ANIMAL ID | 04352 | 04336 | 04333 | 04333 | 04344 | 04664 | 04664 | 04665 | 04665 | 04665 | 04665 | 04665 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | |
| Preputial Gland | + | | | | + | | | | | + | | | + | | + | | | | + | + | + | | | | |
| Carcinoma | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | X | | | | | | |
| Bilateral, Carcinoma | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adenoma | | | | | | | | | | X | | | | | | | X | | | | X | | | | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Granulocytic | | | | | | | | | | | | X | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | X | | | | | | |
| Lymph Node | + | + | | + | | | | | | + | + | | | | | | | + | | + | | | + | | |
| Cervical, Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | X | | | | | | | |
| Mediastinal, Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|------|
| | 0721 | 0487 | 0527 | 0560 | 0728 | 0778 | 0778 | 0226 | 0446 | 0770 | 0770 | 0770 | 0637 | 0778 | 0778 | 0617 | 0665 | 0459 | 0663 | 0727 | 0664 | 0495 | 0238 | 0645 | | 0285 | 0680 | 0724 |
| ANIMAL ID | 04352 | 04336 | 04333 | 04333 | 04334 | 04344 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | |
| Mediastinal, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreatic, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreatic, Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Renal, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Renal, Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Thymus | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Adenocarcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fibroma | | | | | | X | | | | | | | | | | | | | | | | | | | | | | 2 |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | 12 |
| Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pilomatrixoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
| | 0721 | 0487 | 0527 | 0560 | 0728 | 0778 | 0778 | 0226 | 0426 | 0770 | 0770 | 0677 | 0778 | 0677 | 0665 | 0459 | 0663 | 0774 | 0664 | 0425 | | 0260 |
| ANIMAL ID | 04352 | 04336 | 04336 | 04336 | 04344 | 06644 | 06665 | 06655 | 06655 | 06655 | 06655 | 06655 | 06655 | 08333 | 08333 | 08333 | 08333 | 08333 | 08333 | 08333 | 08333 | 08333 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Spinal Cord, Lumbar | | | | | + | | | | | | | | | | | | | | | | | | | | 11 |
| Spinal Cord, Thoracic | | | | | + | | | | | | | | | | | | | | | | | | | | 11 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|--|---|--|---|---|---|---|---|---|---|--|---|---|---|---|----|
| Lung | + | + | + | + | + | + | + | + | + | | | | | + | + | + | + | + | | | + | + | + | + | 38 |
| Alveolar/Bronchiolar Adenoma | | | | | | | | | | | | | | | | X | | | | | | | | 1 | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Leukemia Granulocytic | | | | | | | | | | | X | | | | | | | | | | | | | 1 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | X | | | | | | | 2 | |
| Nose | + | + | + | + | | | | + | + | | | | | + | + | + | + | + | | | + | + | + | + | 33 |
| Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | | X | | | | | | 2 | |
| Trachea | + | + | + | + | | | | + | + | | | | | + | + | | A | + | + | | + | A | + | + | 31 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|---|--|---|---|
| Eye | | | | | | | | | | + | | | | | | | | | | | | + | | | 4 |
| Zymbal's Gland | + | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | 07 | 04 | 05 | 05 | 07 | 07 | 07 | 02 | 04 | 07 | 07 | 07 | 06 | 07 | 07 | 06 | 06 | 04 | 05 | 06 | 07 | 06 | 04 | 02 | 06 | * TOTALS |
| | ANIMAL ID | 21 | 87 | 27 | 60 | 28 | 28 | 28 | 26 | 66 | 70 | 70 | 70 | 77 | 78 | 77 | 67 | 65 | 49 | 55 | 23 | 27 | 34 | 95 | 85 | 04 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lipoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 4 |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|-----------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 0681 | 0713 | 0517 | 0293 | 0727 | 0779 | 0663 | 0767 | 0641 | 0664 | 0772 | 0779 | 0543 | 0661 | 0665 | 0578 | 0722 | 0725 | 0772 | 0777 | | 0770 | 0772 | | | | | | |
| ANIMAL ID | | 0017 | 0012 | 0011 | 0011 | 0011 | 0012 | 0012 | 0012 | 0022 | 0022 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0023 | 0024 | 0024 | 0024 | 0024 | 0025 | 0025 | 0025 | 0025 | 0025 | 0025 |
| | | 1171 | 2771 | 8881 | 8821 | 9991 | 9992 | 0001 | 0002 | 1111 | 1112 | 3331 | 3332 | 3334 | 4441 | 4442 | 5551 | 5552 | 6661 | 6662 | 7771 | 7772 | 9991 | 9992 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 |
| | | males (cont...) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | | + | + | | + | + | + | + | | + | + | + | + | + | | + | | | | | | | | | | |
| Intestine Large, Colon | + | A | A | A | | A | + | | + | + | + | + | | + | + | + | A | + | | + | | | | | | | | | | |
| Intestine Small, Ileum | + | A | A | A | | A | + | | + | + | + | + | | + | + | + | A | + | | + | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Pancreas | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Stomach, Forestomach | + | + | + | + | | + | + | | + | + | + | + | | + | + | + | + | + | | + | | | | | | | | | | |
| Stomach, Glandular | + | + | A | + | | + | + | | + | + | + | + | | + | + | + | + | + | | + | | | | | | | | | | |
| Tongue | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | 0
6
8
1 | 0
7
1
3 | 0
5
1
7 | 0
2
9
3 | 0
7
2
9 | 0
7
1
3 | 0
6
9
7 | 0
7
2
1 | 0
6
5
9 | 0
4
1
4 | 0
6
2
0 | 0
6
3
0 | 0
7
2
9 | 0
5
4
3 | 0
6
1
6 | 0
6
7
5 | 0
5
8
4 | 0
7
2
5 | 0
7
2
7 | 0
7
2
7 | 0
7
2
0 | 0
7
0
0 | 0
7
2
7 | males
(cont...) |
|--|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
| | ANIMAL ID | 0
0
1
7
1 | 0
0
1
7
2 | 0
0
1
8
1 | 0
0
1
8
2 | 0
0
1
9
1 | 0
0
2
0
2 | 0
0
2
1
2 | 0
0
2
1
2 | 0
0
2
1
2 | 0
0
2
1
2 | 0
2
3
3
3 | 0
2
3
3
3 | 0
2
3
3
3 | 0
2
3
3
4 | 0
2
3
3
5 | 0
2
3
3
6 | 0
2
3
3
6 | 0
2
3
3
7 | 0
4
4
9
1 | 0
4
4
9
2 | 0
4
4
9
0 | 0
4
5
0
1 | 0
4
5
0
2 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pheochromocytoma Benign | | | | | | | X | | | | | | | | | | | | | | | X | | | | |
| Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Islets, Pancreatic | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Adenoma | | | | | | | | | | | | X | | | | | | | X | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Pars Distalis, Adenoma | X | X | | | X | | X | | | | X | X | X | X | | X | | | | X | | X | X | X | | |
| Pars Intermedia, Adenoma | | | | | | | | | | | | | | | | | | | X | | | | | | | |
| Thyroid Gland | + | + | A | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | A | + | | |
| C-cell, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Follicular Cell, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|
| | 0681 | 0713 | 0517 | 0293 | 0727 | 0779 | 0663 | 0767 | 0661 | 0449 | 0664 | 0660 | 0779 | 0773 | 0543 | 0660 | 0665 | 0578 | 0722 | 0725 | | | 0772 | 0770 |
| | 0011 | 0011 | 0011 | 0011 | 0011 | 0012 | 0022 | 0022 | 0023 | 0033 | 0033 | 0033 | 0033 | 0033 | 0035 | 0056 | 0066 | 0077 | 0079 | 0099 | 0000 | 0001 | 0002 | |

| | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | |
| Fat Pad, Epididymal | + | | | | | | | | | | | | | | | | | | | | | |
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Dorsal/lateral Lobe | + | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | |
| Prostate, Ventral Lobe | + | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma, Multiple | X | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | |
| Seminal Vesicle | + | | | | | | | | | | | | | | | | | | | | | |
| Testes | + | | | | | | | | | | | | | | | | | | | | | |
| Seminoma Malignant | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | |
| Lymph Node | + | | | | | | | | | | | | | | | | | | | | | |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|--|-------------|------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|
| | 0681 | 0713 | 0057 | 0029 | 0072 | 0077 | 0066 | 0077 | 0066 | 0041 | 0066 | 0077 | 0077 | 0055 | 0066 | 0066 | 0055 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | 0077 | |

Pancreatic, Lymphoma Malignant

X

Lymph Node, Mandibular
Lymphoma Malignant

+

+

X

Lymph Node, Mesenteric
Lymphoma Malignant

+

X

Spleen
Lymphoma Malignant
Sarcoma

+ +

X

Thymus
Lymphoma Malignant

+ + A +

X

INTEGUMENTARY SYSTEM

Mammary Gland
Fibroadenoma
Fibroadenoma, Multiple
Lymphoma Malignant

+ +

X

X

X

Skin
Squamous Cell Carcinoma
Squamous Cell Papilloma
Subcutaneous Tissue, Fibroma
Subcutaneous Tissue, Lipoma
Subcutaneous Tissue, Sarcoma

+ + +

+

+

+

+

+

+

X

X X

X

X

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
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 Bisphenol A
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 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|--|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | | 0681 | 0713 | 0517 | 0293 | 0727 | 0779 | 0663 | 0767 | 0641 | 0664 | 0767 | 0779 | 0542 | 0633 | 0661 | 0665 | 0578 | 0722 | 0722 | 0777 | 0777 | 0777 | 0777 | 0777 | |
| ANIMAL ID | | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0011 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem
Granular Cell Tumor Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebrum
Granular Cell Tumor Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | + |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | + |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | + |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | + |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | + |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | + |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|---|---|---|
| Lung
Alveolar/Bronchiolar Carcinoma | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|
| | 0681 | 0713 | 0517 | 0293 | 0727 | 0779 | 0663 | 0767 | 0661 | 0494 | 0664 | 0660 | 0779 | 0779 | 0543 | 0661 | 0665 | 0574 | 0772 | 0775 | 0772 | 0770 | 0770 | 0772 | | | | |
| | 0011 | 0011 | 0011 | 0011 | 0011 | 0012 | 0022 | 0022 | 0023 | 0033 | 0033 | 0033 | 0033 | 0033 | 0055 | 0056 | 0066 | 0067 | 0077 | 0077 | 0044 | 0044 | 0044 | 0044 | 0055 | 0055 | 0000 | 0011 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|--|---|---|--|---|---|---|---|--|--|---|---|---|---|---|--|--|--|--|--|--|--|---|
| Nose
Lymphoma Malignant | + | + | + | + | | + | + | | + | + | + | + | | | + | + | + | + | + | | | | | | | | + |
| Trachea | + | + | A | A | | A | + | | + | + | + | + | | | + | + | + | A | + | | | | | | | | A |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney
Lymphoma Malignant
Sarcoma, Metastatic, Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0462 | 0650 | 0727 | 0614 | 0728 | 0774 | 0167 | 0554 | 0559 | 0634 | 0669 | 0679 | 0725 | 0733 | 0544 | 0643 | 0450 | 0476 | 0076 | 0726 | |
| ANIMAL ID | 0451 | 0422 | 0422 | 0431 | 0433 | 0451 | 0455 | 0455 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 2 | 2 | 2 | 3 | 3 | 5 | 5 | 4 | 4 | 5 | 5 | 6 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 0 |
| | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | | + | | | + | + | + | + | + | + | + | | | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | + | + | | A | | | + | + | + | + | + | + | + | | | A | A | A | + | A | + |
| Intestine Small, Ileum | + | A | | A | | | A | + | + | A | + | + | + | | | A | A | A | + | A | A |
| Liver | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemangiosarcoma | | | | | | | X | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | + | + | | + | | | + | + | + | + | + | + | + | | | A | + | + | + | + | + |
| Stomach, Glandular | + | + | | + | | | + | + | + | + | + | + | + | | | A | + | + | + | + | + |
| Tongue | | | | | | | | | | | | | | | | | | | | | + |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|
| | 042 | 065 | 072 | 061 | 072 | 071 | 066 | 055 | 055 | 066 | 066 | 066 | 077 | 077 | 055 | 066 | 044 | 044 | 007 | 072 | | 077 | 066 | 065 |
| ANIMAL ID | 045 | 045 | 045 | 045 | 045 | 045 | 066 | 066 | 066 | 066 | 066 | 066 | 066 | 066 | 084 | 084 | 084 | 084 | 084 | 084 | 085 | 085 | 000 | 082 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fat Pad, Epididymal | | | | | | | + | | | | | | | | | | | | | | | | | | 2 |
| Preputial Gland | | | + | | | + | + | | | + | + | | | + | + | | + | | | + | | | | | 15 |
| Carcinoma | | | | | | | | | | X | | | | | | | | | | | | | | | 2 |
| Squamous Cell Papilloma | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Adenoma | | | | | | | | | | X | | | | | | | | | | | | | X | | 5 |
| Adenoma, Multiple | | | | | | X | | | | | | | | | | | | | | | | | | 2 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Seminal Vesicle | + | A | + | A | + | + | A | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + | 42 | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Seminoma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | 1 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node | | | | | | | | | | | | | | | | | + | | | | | + | | 9 |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|
| | 0462 | 0650 | 0727 | 0614 | 0728 | 0774 | 0167 | 0554 | 0559 | 0663 | 0669 | 0664 | 0775 | 0773 | 0554 | 0668 | 0443 | 0440 | 0776 | 0726 | | 0673 | 0663 | | | | |
| ANIMAL ID | 04512 | 04511 | 04522 | 04533 | 04531 | 04542 | 04564 | 04566 | 04566 | 04566 | 04566 | 04566 | 04566 | 04566 | 04566 | 04566 | 04584 | 04588 | 04588 | 04588 | 04588 | 04588 | 04588 | 04588 | 04588 | 04588 | 04588 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Granular Cell Tumor Benign | | | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Granular Cell Tumor Malignant | | | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Nerve Trigeminal | | | + | | | | | + | | | + | | + | | + | | | | | | | | | | | | 6 |
| Peripheral Nerve, Sciatic | | | + | | | | | + | | | + | | + | | + | | | | | | | | | | | | 6 |
| Peripheral Nerve, Tibial | | | + | | | | | + | | | + | | + | | + | | | | | | | | | | | | 6 |
| Spinal Cord, Cervical | | | + | | | | | + | | | + | | + | | + | | | | | | | | | | | | 6 |
| Spinal Cord, Lumbar | | | + | | | | | + | | | + | | + | | + | | | | | | | | | | | | 6 |
| Spinal Cord, Thoracic | | | + | | | | | + | | | + | | + | | + | | | | | | | | | | | | 6 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | | + | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 39 |
| Alveolar/Bronchiolar Carcinoma | | | | | | | | | | | | | | | | | X | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|---|-----------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|-------|-------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | | 0667 | 0569 | 0727 | 0727 | 0589 | 0496 | 0701 | 0394 | 0673 | 0413 | 0726 | 0722 | 0728 | 0588 | 0577 | 0748 | 0528 | 0728 | 0728 | 0729 | 0588 | 0728 | 0528 | 0728 | | 0495 | 0728 | 0485 | 0619 |
| | ANIMAL ID | 00331 | 00332 | 00334 | 00341 | 00352 | 00361 | 00372 | 00381 | 00392 | 00401 | 00412 | 00422 | 00432 | 00442 | 00452 | 00462 | 00472 | 00482 | 00492 | 00502 | 00512 | 00522 | 00532 | 00542 | | 00552 | 00562 | 00572 | 00582 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | | | + | + | + | + | + | + | | + | | + | + | | + | + | | | | | | | | | | + | + | |
| Intestine Large, Colon
Adenocarcinoma | + | + | | | + | + | + | + | + | + | | + | | + | + | | + | + | | | | | | | | | | | + | + |
| Intestine Small, Ileum | + | A | | | + | + | + | A | + | + | | + | | + | + | | + | + | | | | | | | | | | | + | + |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Liver
Hepatocellular Adenoma, Multiple
Leukemia Mononuclear
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Oral Mucosa
Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Forestomach | + | + | | | + | + | + | + | + | + | | + | | + | + | | + | + | | | | | | | | | | | + | + |
| Stomach, Glandular
Squamous Cell Papilloma | + | + | | | + | + | + | + | + | + | | + | + | + | + | | + | + | | | | | | | | | | | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
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 2 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|-------|-------|-------|
| | 0667 | 0669 | 0727 | 0727 | 0589 | 0496 | 0731 | 0394 | 0673 | 0413 | 0726 | 0722 | 0722 | 0588 | 0577 | 0728 | 0657 | 0578 | 0728 | 0578 | 0728 | 0578 | 0728 | 0488 | | 0442 | 0446 | 0446 | 0466 | 0467 |
| ANIMAL ID | 00331 | 00332 | 00334 | 00342 | 00351 | 00352 | 00361 | 00362 | 00371 | 00372 | 00381 | 00382 | 00391 | 00392 | 00401 | 00402 | 00411 | 00412 | 00421 | 00422 | 00431 | 00432 | 00441 | 00442 | 00451 | 00452 | 00461 | 00462 | 00471 | 00472 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex
Leukemia Mononuclear
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adrenal Medulla
Pheochromocytoma Benign
Pheochromocytoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic
Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pituitary Gland
Leukemia Mononuclear
Lymphoma Malignant
Pars Distalis, Adenoma
Pars Intermedia, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thyroid Gland
Follicular Cell, Carcinoma | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
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| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | | |
|---|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|--------|--------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | | 0667 | 0569 | 0727 | 0727 | 0589 | 0496 | 0731 | 0394 | 0673 | 0413 | 0726 | 0722 | 0722 | 0588 | 0577 | 0728 | 0574 | 0728 | 0728 | 0728 | 0729 | 0488 | 0728 | 0729 | | 0485 | 0619 |
| ANIMAL ID | | 003331 | 003341 | 003342 | 003351 | 003352 | 003361 | 003362 | 003371 | 003372 | 003381 | 003382 | 003391 | 003392 | 003401 | 003402 | 003411 | 003412 | 003421 | 003422 | 003431 | 003432 | 003441 | 003442 | 003451 | | 003452 | 003461 |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Coagulating Gland
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Ductus Deferens | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Preputial Gland
Carcinoma | + | | + | | | + | | | + | | + | | | + | | + | | | + | | + | | | | | | | |
| Prostate, Dorsal/lateral Lobe
Leukemia Mononuclear
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Prostate, Ventral Lobe
Adenoma
Leukemia Mononuclear
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Seminal Vesicle | + | A | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------------|--|
| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | |
| SPRAGUE DAWLEY (NCTR) | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| RATS MALE | 6 | 5 | 7 | 7 | 5 | 4 | 7 | 3 | 6 | 4 | 7 | 7 | 7 | 5 | 5 | 7 | 6 | 5 | 7 | 5 | 7 | 7 | 4 | | |
| F1 25.0 BPA M | 7 | 6 | 2 | 2 | 8 | 9 | 0 | 9 | 7 | 1 | 2 | 2 | 2 | 8 | 7 | 2 | 8 | 7 | 7 | 4 | 2 | 2 | 8 | | |
| | 9 | 9 | 7 | 7 | 9 | 6 | 1 | 4 | 3 | 3 | 6 | 0 | 8 | 8 | 7 | 9 | 8 | 7 | 7 | 8 | 8 | 8 | 9 | | |
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | | |
| | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 6 | 6 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | males
(cont...) | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | |
| Brachial, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Sarcoma | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|---|---------------------------|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|------|
| | | 0667 | 0569 | 0727 | 0727 | 0589 | 0496 | 0731 | 0394 | 0093 | 0063 | 0043 | 0072 | 0072 | 0072 | 0058 | 0057 | 0072 | 0054 | 0072 | 0077 | 0077 | 0042 | 0022 | 0028 | | 0028 |
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | ANIMAL ID | 003331 | 003341 | 003412 | 003422 | 003511 | 003622 | 003612 | 003622 | 003622 | 003622 | 003622 | 003622 | 003622 | 003622 | 003622 | 003622 | 003622 | 003622 | 003622 | 003622 | 003622 | 003622 | 003622 | 003622 | 003622 | |
| | Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | | | | + |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung | + | + | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | + | + | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | + | + | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |

URINARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | males
(cont...) |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|
| | | 6 | 5 | 7 | 7 | 5 | 4 | 7 | 3 | 6 | 4 | 7 | 7 | 7 | 5 | 5 | 7 | 6 | 5 | 7 | 5 | 7 | 7 | 4 | 6 | | |
| | | 6 | 6 | 2 | 2 | 8 | 9 | 0 | 9 | 7 | 1 | 2 | 2 | 2 | 8 | 7 | 2 | 8 | 7 | 2 | 4 | 2 | 2 | 8 | 8 | 3 | |
| | | 7 | 9 | 7 | 7 | 9 | 6 | 1 | 4 | 3 | 3 | 6 | 0 | 8 | 8 | 7 | 9 | 8 | 7 | 7 | 8 | 8 | 8 | 8 | 9 | 1 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 0 | |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 3 | | |
| | | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 3 | | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |
| Oncocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | | + | | | | | | | | | + | | | | | | | | | | | | | |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 2 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|--|
| | 0560 | 0339 | 0538 | 0551 | 0722 | 0772 | 0667 | 0445 | 0577 | 0772 | 0772 | 0554 | 0748 | 0665 | 0675 | 0676 | 0221 | 0585 | 0772 | 0772 | | 0533 | 0757 | |
| ANIMAL ID | 04672 | 04681 | 04682 | 04689 | 04691 | 04692 | 04697 | 04698 | 04699 | 04700 | 04701 | 04702 | 04703 | 04704 | 04705 | 04706 | 04707 | 04708 | 04709 | 04710 | 04711 | 04712 | 04713 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 8 | 8 | 8 | 8 | 9 | 7 | 7 | 7 | 7 | 8 | 9 | 9 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | | | | | + | + | + | | | | | + | + | + | | | | | + | | 31 |
| Intestine Large, Colon
Adenocarcinoma | + | A | + | + | | | | | + | + | + | | | | | + | + | + | | | | | + | + | 31 |
| | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Intestine Small, Ileum | + | A | + | + | | | | | A | + | + | | | | | + | + | + | | | | | + | | 27 |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Hepatocellular Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | X | | | | | | | | | X | | | | | | | X | | | | | | | 3 |
| Mesentery | | | + | | | | + | | | | | | | | | | | + | | | | | | | 4 |
| Oral Mucosa | | | | | | | | | | | | | | + | | | | | | | | | | | 1 |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Stomach, Forestomach | + | + | + | + | | | | | + | + | + | | | | | + | + | + | | | | | + | | 33 |
| Stomach, Glandular | + | + | + | + | | | | | + | + | + | | | | | + | + | + | | | | | + | | 33 |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | + | | 1 |

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|
| | 0560 | 0339 | 0580 | 0581 | 0728 | 0776 | 0777 | 0847 | 0855 | 0873 | 0875 | 0875 | 0890 | 0899 | 0899 | 0899 | 0899 | 0899 | 0899 | 0899 | | 0899 |
| ANIMAL ID | 04672 | 04681 | 04682 | 04691 | 04692 | 04691 | 04692 | 04691 | 04692 | 04691 | 04692 | 04691 | 04692 | 04691 | 04692 | 04691 | 04692 | 04691 | 04692 | 04691 | 04692 | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear | | | | | | | | | | | | | | X | | | | | | | | 1 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear | | | | | | | | | | | | | | X | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | X | | | | | | | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | 47 |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | 2 |
| Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | 1 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | 7 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 47 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | 2 |
| Pars Distalis, Adenoma | X | | X | | | | X | | X | X | X | | | X | X | | X | | X | | X | 23 |
| Pars Intermedia, Adenoma | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Follicular Cell, Carcinoma | | | | | | | | | | | | | | | | | | | | | | 1 |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
Test Type: CHRONIC
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| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | DAY ON TEST | 5 | 3 | 5 | 5 | 7 | 7 | 6 | 4 | 5 | 7 | 7 | 5 | 4 | 6 | 6 | 7 | 6 | 2 | 5 | 7 | 7 | 5 | 7 | 2 | 2 | 3 | 3 | 7 | | |
| | | 6 | 3 | 8 | 1 | 2 | 2 | 7 | 7 | 7 | 2 | 2 | 4 | 8 | 5 | 5 | 2 | 1 | 8 | 6 | 2 | 8 | 2 | 3 | 3 | 2 | 2 | 7 | | | |
| | 0 | 9 | 0 | 0 | 8 | 6 | 9 | 7 | 3 | 5 | 5 | 0 | 9 | 9 | 0 | 7 | 8 | 5 | 2 | 2 | 8 | 2 | 8 | 8 | 8 | 2 | 2 | 1 | 2 | 7 | |
| F1 25.0 BPA M | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 7 | 8 | 8 | 8 | 9 | 9 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | * TOTALS |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Coagulating Gland | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Leukemia Mononuclear | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | 1 |
| Ductus Deferens | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Preputial Gland | | | | | | | | + | | | | | | | | + | + | + | | | | | + | | | | | | | 15 |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | 5 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | 1 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Leukemia Mononuclear | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | 1 |
| Seminal Vesicle | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0560 | 0339 | 0580 | 0510 | 0728 | 0776 | 0647 | 0457 | 0077 | 0077 | 0545 | 0475 | 0669 | 0660 | 0770 | 0668 | 0218 | 0572 | 0728 | 0273 | | 0573 | 0727 |
| ANIMAL ID | 04672 | 04681 | 04682 | 04691 | 04692 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 | 04661 | 04662 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | + | | + | | | | | | | | | | | | | | | | | | | |
| Brachial, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Sarcoma | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | |
| | 5 | 3 | 5 | 5 | 7 | 7 | 6 | 4 | 5 | 7 | 7 | 5 | 4 | 6 | 6 | 7 | 6 | 2 | 5 | 7 | | 7 | 5 | 7 |
| | 6 | 3 | 8 | 1 | 2 | 2 | 7 | 7 | 3 | 5 | 5 | 4 | 8 | 5 | 5 | 2 | 1 | 8 | 6 | 2 | 8 | 3 | 2 | |
| | 0 | 9 | 0 | 0 | 8 | 6 | 9 | 7 | 7 | 5 | 0 | 9 | 9 | 9 | 0 | 7 | 8 | 5 | 2 | 8 | 8 | 3 | 7 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 6 | 6 | 3 | 3 | 6 | |
| | 7 | 8 | 8 | 9 | 9 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|--|---|---|---|--|--|---|---|--|--|--|--|--|---|---|--|--|---|---|--|--|--|----|
| Skin | | | | | | | | | | | | | | | | | | | | | | | | 14 |
| Squamous Cell Carcinoma | | | + | + | + | | | + | + | | | | | | + | + | | | + | + | | | | 1 |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | X | | | | | | | | | 1 |
| Subcutaneous Tissue, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | X | | | | | | | | | | | | | | | 2 |
| Subcutaneous Tissue, Lipoma | | | | | | | | | | | | | | | | | | | X | | | | | 1 |
| Subcutaneous Tissue, Myxosarcoma | | | | | X | | | | | | | | | | | | | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Skeletal Muscle | | | | | | | | | | | | | | + | + | | | | | + | | | | 3 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Mononuclear | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | X | | | | | | | | | | | X | | | | | | | | | | 2 |
| Nerve Trigeminal | | | | | | | | | | | | + | + | + | | | | | + | | | | | 5 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
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Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|----|
| | 0560 | 0339 | 0580 | 0581 | 0728 | 0776 | 0777 | 0847 | 0855 | 0873 | 0875 | 0875 | 0890 | 0899 | 0899 | 0899 | 0899 | 0899 | 0899 | 0899 | | 0899 | | |
| ANIMAL ID | 04672 | 04681 | 04682 | 04691 | 04692 | 06611 | 06621 | 06671 | 06672 | 06677 | 06678 | 06688 | 06689 | 06690 | 06691 | 06692 | 06693 | 06694 | 06695 | 06696 | 06697 | 06698 | 06699 | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | | | + | + | + | | + | + | + | + | + | + | + | + | + | | + | | | 34 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | 2 |
| Nose | + | + | + | + | | | + | + | + | | + | + | + | + | | + | + | + | | + | | | | 31 |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | 3 |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Trachea | + | A | + | + | | | + | + | + | | + | + | + | + | | + | + | + | | + | | | | 30 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
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Experiment Number: 10034 - 04

Test Type: CHRONIC

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Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0560 | 0339 | 0550 | 0551 | 0728 | 0726 | 0647 | 0457 | 0773 | 0775 | 0544 | 0748 | 0765 | 0667 | 0660 | 0772 | 0618 | 0256 | 0728 | 0728 | | 0573 | 0757 |
| ANIMAL ID | 04672 | 04681 | 04682 | 04691 | 04692 | 06671 | 06672 | 06671 | 06672 | 06671 | 06672 | 06671 | 06672 | 06671 | 06672 | 08811 | 08812 | 08811 | 08812 | 08811 | 08812 | 08811 | 08812 |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | X | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | |
| Oncocytoma Benign | | | | | | | | X | | | | | | | | | | | | | | | |
| Urinary Bladder | | + | | | | | | | | | | | | | | | | | | | | | |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | X | | | | | | |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | X | | | | X | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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Experiment Number: 10034 - 04
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 Bisphenol A
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 2 Year Animals

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 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | ANIMAL ID | 3 | 7 | 4 | 5 | 6 | 7 | 6 | 6 | 7 | 7 | 5 | 7 | 7 | 5 | 6 | 6 | 5 | 6 | 7 | 7 | | 7 | 6 | 6 | 7 |
| | | 1 | 1 | 6 | 7 | 0 | 0 | 7 | 8 | 2 | 2 | 8 | 2 | 2 | 9 | 9 | 9 | 7 | 0 | 0 | 2 | 2 | 2 | 3 | 2 | 2 |
| | | 2 | 3 | 8 | 5 | 2 | 0 | 4 | 7 | 6 | 7 | 9 | 8 | 8 | 5 | 7 | 8 | 4 | 1 | 6 | 7 | 7 | 8 | 0 | 3 | 8 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 |
| | | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | |
| | | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 1 | 1 | 2 | 2 | 3 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | | + | | + | + | + | + | + | + | | | + | + | | | | |
| Intestine Large, Colon
Lymphoma Malignant | + | + | A | + | + | + | + | + | | + | | + | + | + | + | + | + | | | A | + | | | | |
| Intestine Small, Ileum | + | A | A | A | + | + | A | + | | + | | + | + | + | + | + | A | | | A | + | | | | |
| Liver
Fibrosarcoma, Metastatic, Skin
Hemangiosarcoma
Hepatocellular Adenoma
Hepatocellular Carcinoma
Lipoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas
Lymphoma Malignant
Acinar Cell, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | | + | | + | + | + | + | + | + | | | | | | + | + | |
| Stomach, Glandular | + | + | A | + | + | + | + | + | | + | | + | + | + | + | + | + | | | | | A | + | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
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 X .. Lesion present
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 Bisphenol A
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 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | | |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | ANIMAL ID | 3 | 7 | 4 | 5 | 6 | 7 | 6 | 6 | 7 | 7 | 5 | 7 | 7 | 5 | 6 | 6 | 5 | 6 | 7 | 7 | | 7 | 7 | 6 | 6 | 7 |
| | | 1 | 1 | 6 | 7 | 0 | 0 | 7 | 8 | 2 | 2 | 8 | 2 | 2 | 9 | 9 | 9 | 7 | 0 | 0 | 2 | 2 | 2 | 2 | 3 | 2 | 2 |
| | | 2 | 3 | 8 | 5 | 2 | 0 | 4 | 7 | 6 | 7 | 9 | 8 | 8 | 5 | 7 | 8 | 4 | 1 | 6 | 7 | 7 | 8 | 0 | 3 | 2 | 8 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 | 3 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

Heart
Lymphoma Malignant

+ +

ENDOCRINE SYSTEM

Adrenal Cortex
Adenoma
Lymphoma Malignant

+ +

Adrenal Medulla
Lymphoma Malignant
Pheochromocytoma Benign

+
 X X

Islets, Pancreatic
Adenoma
Lymphoma Malignant

+ + + + + + + + + + + + + M + + + + + + + A + +

Parathyroid Gland
Lymphoma Malignant

+ +

Pituitary Gland
Lymphoma Malignant
Pars Distalis, Adenoma

+
 X X X X X X X X X X

Thyroid Gland
Lymphoma Malignant
C-cell, Carcinoma

+ A A + + + A +
 X

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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Experiment Number: 10034 - 04
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|--------------------|--------------------|
| | 0
3
1
2 | 0
7
1
3 | 0
4
6
8 | 0
5
7
5 | 0
6
0
2 | 0
7
0
0 | 0
6
7
4 | 0
6
8
7 | 0
6
2
6 | 0
7
2
7 | 0
7
2
8 | 0
5
2
8 | 0
7
2
8 | 0
5
9
5 | 0
6
9
7 | 0
6
9
8 | 0
5
7
4 | 0
6
0
1 | 0
7
2
7 | 0
7
2
7 | 0
6
3
0 | 0
6
2
3 | 0
6
2
3 | 0
7
8 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
0
4
9
1 | males
(cont...) | |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Fat Pad, Epididymal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lipoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | + | | + | | | | | | | + | + | + | | | | | | | + | | + | |
| Squamous Cell Papilloma | | | | | | | | | | | | X | | | | | | | | | | | X | | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Seminal Vesicle | + | + | + | A | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mesothelioma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | ANIMAL ID | 3 | 7 | 4 | 5 | 6 | 7 | 6 | 6 | 7 | 7 | 5 | 7 | 7 | 5 | 6 | 6 | 5 | 6 | 6 | 5 | 6 | 7 | 7 | 7 | |
| | | 1 | 1 | 6 | 7 | 0 | 0 | 7 | 8 | 2 | 2 | 8 | 2 | 2 | 9 | 9 | 9 | 7 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | |
| | | 2 | 3 | 8 | 5 | 2 | 0 | 4 | 7 | 6 | 7 | 9 | 8 | 8 | 5 | 7 | 8 | 4 | 1 | 6 | 7 | 7 | 8 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | |
| | | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | |
| | | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | + | | | | + | | | | | + | | | + | | | | | | | + | | | + | |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | | | + | | | | + | | | | | | + | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibroadenoma | | | | | | | | | | | X | | | | | | | | | | | | | |
| Skin | | + | | + | | + | + | + | | + | | | | | | | | | | | | | | |
| Basal Cell Adenoma | | | | | | | | X | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|---|
| | | 3 | 7 | 4 | 5 | 6 | 7 | 6 | 6 | 7 | 7 | 5 | 7 | 7 | 5 | 6 | 6 | 5 | 6 | 6 | 7 | 7 | 7 | 6 | | | 6 |
| | 1 | 1 | 6 | 7 | 0 | 0 | 7 | 8 | 2 | 2 | 8 | 2 | 2 | 9 | 9 | 9 | 7 | 0 | 0 | 2 | 2 | 2 | 3 | 2 | 8 | | |
| | 2 | 3 | 8 | 5 | 2 | 0 | 4 | 7 | 6 | 7 | 9 | 8 | 8 | 5 | 7 | 8 | 4 | 1 | 6 | 7 | 7 | 8 | 0 | 3 | 8 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | | |
| | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | | | |
| | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | males
(cont...) | |

Squamous Cell Papilloma X
 Subcutaneous Tissue, Fibroma X
 Subcutaneous Tissue, Fibrosarcoma
 Subcutaneous Tissue, Lipoma

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | | + | | | | | | | | | | | | | | | | | | | | | | |
| Tibia, Osteosarcoma | | X | | | | | | | | | | | | | | | | | | | | | | |
| Vertebra, Chordoma | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem | | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebellum | | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebrum | | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Granular Cell Tumor Benign | | | | | | | | | | | | | | | | | X | X | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | + | | | | | | | + |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | + | | | | | | | + |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | + | | | | | | | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|-----------|--------------------|
| | 0
3
1
2 | 0
7
1
3 | 0
4
6
8 | 0
5
7
5 | 0
6
0
2 | 0
7
0
0 | 0
6
7
4 | 0
6
8
7 | 0
6
2
6 | 0
7
2
7 | 0
7
2
8 | 0
5
2
9 | 0
7
2
8 | 0
5
2
5 | 0
6
6
7 | 0
6
5
4 | 0
6
0
1 | 0
7
2
7 | 0
7
2
7 | 0
7
2
8 | 0
6
2
0 | 0
6
3
0 | 0
6
2
3 | 0
7
2
8 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
0
4
9
1 | | |

Spinal Cord, Cervical

+ A

Spinal Cord, Lumbar

+ A

Spinal Cord, Thoracic

+ A

RESPIRATORY SYSTEM

Lung
Chordoma, Metastatic, Bone
Lymphoma Malignant

+ + A + + + + + + + + + + + + + + + +

Nose
Lymphoma Malignant

+ + + + + A + + + + + + + + + A +

Trachea

+ A A + + + A + + + + + + + + + A +

SPECIAL SENSES SYSTEM

Eye

+

URINARY SYSTEM

Kidney
Lymphoma Malignant

+ +

Urinary Bladder
Transitional Epithelium, Carcinoma

+ + + +

SYSTEMIC LESIONS

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | 0312 | 0713 | 0468 | 0575 | 0602 | 0674 | 0667 | 0666 | 0778 | 0772 | 0758 | 0775 | 0776 | 0759 | 0667 | 0666 | 0574 | 0660 | 0772 | 0772 | 0788 | 0663 | 0662 | 0663 | 0778 | males
(cont...) |
| | ANIMAL ID | 00491 | 00449 | 00050 | 00055 | 00055 | 00055 | 00055 | 00055 | 00055 | 00066 | 00066 | 00066 | 00066 | 00066 | 00066 | 00066 | 00066 | 00066 | 00066 | 00066 | 00066 | 00066 | 00066 | 00066 | 00066 | |
| | | 1212 | 1313 | 1818 | 2525 | 2022 | 2427 | 2724 | 2627 | 2722 | 2828 | 2228 | 2228 | 2228 | 2228 | 2228 | 2228 | 2228 | 2228 | 2228 | 2228 | 2228 | 2228 | 2228 | 2228 | 2228 | |

Multiple Organ
Lymphoma Malignant
Mesothelioma Malignant

+
X

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | 0
4
6
1 | 0
3
4
3 | 0
5
1
8 | 0
4
7
4 | 0
5
8
3 | 0
4
9
1 | 0
6
3
1 | 0
3
9
2 | 0
6
1
0 | 0
7
2
7 | 0
7
2
0 | 0
5
4
5 | 0
2
4
6 | 0
7
2
7 | 0
3
6
9 | 0
7
2
7 | 0
6
1
8 | 0
7
2
6 | 0
7
2
8 | 0
7
2
8 | 0
7
1
4 | 0
6
0
9 | 0
6
2
7 | * TOTALS |
| | ANIMAL ID | 0
4
8
3
2 | 0
4
8
4
1 | 0
4
8
4
2 | 0
4
8
5
1 | 0
4
8
5
2 | 0
6
9
1
1 | 0
6
9
1
2 | 0
6
9
2
2 | 0
6
9
3
2 | 0
6
9
3
1 | 0
6
9
4
2 | 0
6
9
4
1 | 0
6
9
5
2 | 0
6
9
5
1 | 0
8
7
5
2 | 0
8
7
5
1 | 0
8
7
6
1 | 0
8
7
6
2 | 0
8
7
7
1 | 0
8
7
7
2 | 0
8
8
7
1 | 0
8
7
8
2 | 0
8
8
9
1 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|---|---|-----------|---|
| Esophagus | + | + | + | + | + | + | + | + | + | | | | | | | + | + | + | | | | | | | | | 36 | |
| Intestine Large, Colon
Lymphoma Malignant | A | + | + | + | + | + | + | + | | | | | | | | + | + | + | | | | | | | + | A | A | 30
1 |
| Intestine Small, Ileum | A | + | + | A | + | + | A | + | + | | | | | | | + | + | + | | | | | | | + | A | A | 24 |
| Liver
Fibrosarcoma, Metastatic, Skin
Hemangiosarcoma
Hepatocellular Adenoma
Hepatocellular Carcinoma
Lipoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | 50
1
1
2
2
1
3 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas
Lymphoma Malignant
Acinar Cell, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | 49
2
1 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | | | | | | | | + | + | + | | | | | | | + | + | + | 36 |
| Stomach, Glandular | + | + | + | + | + | + | + | + | | | | | | | | + | + | + | | | | | | | + | A | + | 32 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|
| | 0461 | 0343 | 0518 | 0474 | 0583 | 0491 | 0631 | 0392 | 0610 | 0727 | 0770 | 0525 | 0244 | 0488 | 0726 | 0379 | 0727 | 0770 | 0618 | 0726 | 0728 | 0728 | 0714 | 0609 | | 0627 |
| ANIMAL ID | 04832 | 04881 | 04882 | 04884 | 04885 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | 04889 | |
| Heart Lymphoma Malignant | + | + | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
2 | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1 | |
| Adrenal Cortex Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Adrenal Medulla Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1 | |
| Adrenal Medulla Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | X | | 3 | |
| Islets, Pancreatic Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
1 | |
| Islets, Pancreatic Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Parathyroid Gland Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
1 | |
| Pituitary Gland Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
2 | |
| Pituitary Gland Pars Distalis, Adenoma | X | | X | | X | X | X | | X | | X | X | | | | | | | | | X | | X | | 21 | |
| Thyroid Gland Lymphoma Malignant | A | + | + | A | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44
1 | |
| Thyroid Gland C-cell, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0461 | 0343 | 0518 | 0474 | 0583 | 0491 | 0631 | 0392 | 0610 | 0777 | 0752 | 0545 | 0248 | 0773 | 0369 | 0727 | 0770 | 0618 | 0722 | 0728 | 0778 | 0771 | 0649 | 0602 | |
| ANIMAL ID | 04832 | 04884 | 04884 | 04884 | 04884 | 06691 | 06691 | 06692 | 06692 | 06693 | 06693 | 06694 | 06695 | 06696 | 06697 | 08877 | 08877 | 08877 | 08877 | 08877 | 08877 | 08877 | 08877 | 08877 | 08877 |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | | | 1 |
| Mesothelioma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | | 2 |
| Fat Pad, Epididymal | | | | | | | | | | | | | + | | | | | | | | | | | | | 1 |
| Lipoma | | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Preputial Gland | | | | | | | | | | | | + | | | | | | + | + | | | | + | | + | 13 |
| Carcinoma | | | | | | | | | | | | X | | | | | | X | | | | X | | | | 5 |
| Squamous Cell Papilloma | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | | | | | 1 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Adenoma | | | | | | | | | | | | X | | | | | | | X | | | X | | | | 4 |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | | | 1 |
| Seminal Vesicle | A | + | + | A | + | + | A | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | A | 41 |
| Adenoma | | | | | | | | | | | | | | | | | X | | | | | | | | | 1 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Mesothelioma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
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 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0461 | 0463 | 0465 | 0467 | 0468 | 0469 | 0463 | 0469 | 0461 | 0462 | 0465 | 0464 | 0467 | 0463 | 0467 | 0467 | 0466 | 0467 | 0462 | 0462 | 0468 | 0467 | 0464 | 0466 | |
| ANIMAL ID | 0483 | 0488 | 0488 | 0488 | 0488 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | 0489 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | | |
| | 3 | 4 | 4 | 4 | 5 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | X | | | | | X | | | | | | | | | | | | | | X | | | 3 |
| Lymph Node | | | + | | | | + | + | | + | | | | + | | + | + | + | | | | | | + | 15 |
| Axillary, Lymphoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Lymphoma Malignant | | | | X | | | | X | | | | | | | | | | | | | | | | | 2 |
| Mediastinal, Lymphoma Malignant | | | | X | | | | X | | | | | | | | | | | | | | | | | 2 |
| Pancreatic, Lymphoma Malignant | | | | X | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | | | + | | | | + | + | | | | + | | | | | | + | | | | | | | 8 |
| Lymphoma Malignant | | | X | | | | | X | | | | | | | | | | | | | | | | | 2 |
| Lymph Node, Mesenteric | | | | | | | | + | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | | 1 |
| Spleen | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 47 |
| Lymphoma Malignant | | | X | | | | | X | | | | | | | | | | | | | | X | | | 3 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | X | | | | | X | | | | | | | | | | | | | | | | | 2 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibroadenoma | | | | | | | | | | | | | | | X | | | | | | | | | | 2 |
| Skin | | | | | | | + | | | | + | + | | | + | | + | + | | | | + | | + | 14 |
| Basal Cell Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 4 | 3 | 5 | 4 | 5 | 4 | 6 | 3 | 6 | 7 | 7 | 5 | 2 | 4 | 7 | 3 | 7 | 7 | 6 | 7 | 2 | 2 | 7 | 7 | 6 | 6 |
| | | 6 | 4 | 1 | 7 | 8 | 9 | 3 | 9 | 1 | 2 | 2 | 5 | 4 | 8 | 2 | 6 | 2 | 0 | 1 | 2 | 2 | 1 | 0 | 0 | 6 | 6 |
| | | 1 | 3 | 8 | 4 | 3 | 1 | 1 | 2 | 0 | 7 | 0 | 7 | 5 | 6 | 7 | 9 | 7 | 6 | 8 | 6 | 8 | 8 | 4 | 9 | 2 | 7 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 3 | 4 | 4 | 4 | 5 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 9 | 9 |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |

| | | |
|-----------------------------------|---|---|
| Squamous Cell Papilloma | X | 2 |
| Subcutaneous Tissue, Fibroma | | 1 |
| Subcutaneous Tissue, Fibrosarcoma | X | 1 |
| Subcutaneous Tissue, Lipoma | X | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | | + | 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tibia, Osteosarcoma | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vertebra, Chordoma | | X | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle | | + | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Granular Cell Tumor Benign | | | | | | | | | | | X | | | | | | | | | | X | | | | | | | | 4 |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | 1 |
| Nerve Trigeminal | + | | + | + | | | | | | | | | | | | | | + | | | + | + | + | | | | | 9 | |
| Peripheral Nerve, Sciatic | + | | + | + | | | | | | | | | | | | | | | + | | | + | + | + | | | | | 9 |
| Peripheral Nerve, Tibial | + | | + | + | | | | | | | | | | | | | | | + | | | + | + | + | | | | | 9 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|---|----|----|
| | 0461 | 0343 | 0518 | 0474 | 0583 | 0491 | 0631 | 0392 | 0610 | 0777 | 0752 | 0544 | 0488 | 0727 | 0369 | 0777 | 0608 | 0726 | 0728 | 0788 | 0714 | 0609 | 0667 | | | | | |
| ANIMAL ID | 04832 | 04841 | 04844 | 04845 | 04888 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | | | | |
| Spinal Cord, Cervical | + | | | + | + | | | | | | | | | | | | | | | + | | + | + | + | 8 | | | |
| Spinal Cord, Lumbar | + | | | + | + | | | | | | | | | | | | | | | + | | + | + | + | 8 | | | |
| Spinal Cord, Thoracic | + | | | + | + | | | | | | | | | | | | | | | + | | + | + | + | 8 | | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | | | | | + | + | + | | | + | + | + | + | | + | + | + | 38 | |
| Chordoma, Metastatic, Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | X | | | | | X | | | | | | | | | | | | | | | | | | 2 | |
| Nose | + | + | + | + | + | + | + | + | + | | | | | + | + | + | | | + | + | + | | | + | + | + | 34 | |
| Lymphoma Malignant | | | | X | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Trachea | A | + | + | A | + | + | + | + | + | | | | | + | + | + | | | A | + | + | + | | | + | A | A | 27 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymphoma Malignant | | | | X | | | | | X | | | | | | | | | | | | | | | | | X | 3 | |
| Urinary Bladder | | | | | | | | | + | | | | | | | | | | + | | | | | | | | 5 | |
| Transitional Epithelium, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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 Bisphenol A
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| | 041 | 033 | 058 | 044 | 053 | 041 | 061 | 032 | 060 | 077 | 070 | 055 | 024 | 077 | 036 | 077 | 076 | 068 | 072 | 072 | 078 | 071 | 069 | 062 | |
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | |
| | 048 | 048 | 048 | 048 | 048 | 069 | 069 | 069 | 069 | 069 | 069 | 069 | 069 | 069 | 087 | 087 | 087 | 087 | 087 | 087 | 087 | 087 | 089 | 089 | |
| | 32 | 41 | 42 | 41 | 52 | 11 | 12 | 21 | 22 | 31 | 32 | 41 | 42 | 51 | 52 | 61 | 62 | 71 | 72 | 81 | 82 | 81 | 91 | 92 | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | X | | | | | X | | | | | | | | | | | | | | | X | | 3 |
| Mesothelioma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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 Lab: NCTR

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | 3 | 5 | 5 | 5 | 7 | 7 | 5 | 7 | 5 | 6 | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 6 | 4 | 5 | 7 | 7 | 7 | 6 | 7 |
| | | 0 | 8 | 4 | 4 | 2 | 2 | 8 | 2 | 8 | 3 | 2 | 2 | 8 | 2 | 2 | 4 | 2 | 7 | 1 | 6 | 0 | 2 | 3 | 6 | 2 |
| | | 2 | 2 | 2 | 1 | 5 | 6 | 9 | 7 | 6 | 1 | 8 | 7 | 0 | 8 | 9 | 9 | 8 | 8 | 2 | 7 | 0 | 7 | 1 | 9 | 6 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 |
| | | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 7 | 7 | 8 | 8 | 9 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| males (cont...) | | | | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | | | | + | | + | + | | | + | | | | | + | + | + | + | | | | + |
| Intestine Large, Colon | + | + | + | + | | | | + | | + | + | | | + | | | | | A | + | + | A | | | | + |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Intestine Small, Duodenum | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Intestine Small, Ileum | + | + | + | + | | | | + | | + | + | | | + | | | | | A | + | + | A | | | | + |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Hepatocellular Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatocellular Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Mesentery | | | | | | | | | | + | | | | | | | | | | | | | | | | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|--|
| | 0302 | 0306 | 0310 | 0314 | 0318 | 0322 | 0326 | 0330 | 0334 | 0338 | 0342 | 0346 | 0350 | 0354 | 0358 | 0402 | 0406 | 0410 | 0414 | 0418 | 0422 | 0426 | 0430 | 0434 | | |
| ANIMAL ID | 00651 | 00661 | 00671 | 00681 | 00691 | 00701 | 00711 | 00721 | 00731 | 00741 | 00751 | 00761 | 00771 | 00781 | 00791 | 00801 | 00811 | 00821 | 00831 | 00841 | 00851 | 00861 | 00871 | 00881 | 00891 | |
| Fibrosarcoma | | | | X | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Fibroma | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Stomach, Forestomach | + | + | + | + | | | + | | + | + | | | + | | | + | | | + | + | + | + | | | + | |
| Stomach, Glandular | + | + | + | + | | | + | | + | + | | | + | | | + | | | + | + | + | + | | | + | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | X | | | | | | | | | | | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adenoma | | | | | | | X | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bilateral, Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | |
| | | 3 | 5 | 5 | 5 | 7 | 7 | 5 | 7 | 5 | 6 | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 6 | 4 | 5 | | 7 | 7 | 7 | 6 |
| | | 0 | 8 | 4 | 4 | 2 | 2 | 8 | 2 | 8 | 3 | 2 | 2 | 8 | 2 | 2 | 4 | 2 | 7 | 1 | 6 | 0 | 2 | 3 | 6 | 2 |
| | | 2 | 2 | 2 | 1 | 5 | 6 | 9 | 7 | 6 | 1 | 8 | 7 | 0 | 8 | 9 | 9 | 8 | 8 | 2 | 7 | 0 | 7 | 1 | 9 | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | |
| | | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

Islets, Pancreatic
 Adenoma
 Lymphoma Malignant
 Sarcoma, Metastatic, Uncertain Primary Site

Parathyroid Gland

Pituitary Gland
 Lymphoma Malignant
 Pars Distalis, Adenoma
 Pars Distalis, Carcinoma

Thyroid Gland
 Lymphoma Malignant
 C-cell, Adenoma

GENERAL BODY SYSTEM

Tissue NOS
 Sarcoma, Metastatic, Uncertain Primary Site

GENITAL SYSTEM

Coagulating Gland
 Sarcoma, Metastatic, Uncertain Primary Site

Epididymis
 Lymphoma Malignant
 Sarcoma, Metastatic, Uncertain Primary Site

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|
| | 0302 | 0308 | 0304 | 0305 | 0307 | 0307 | 0305 | 0307 | 0305 | 0306 | 0307 | 0307 | 0304 | 0307 | 0307 | 0304 | 0307 | 0306 | 0304 | 0305 | 0307 | 0307 | 0307 | 0306 | | | 0307 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00651 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00662 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00666 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00667 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00671 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00672 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00677 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00678 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00681 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00682 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00683 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00684 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00685 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00686 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00687 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00688 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00689 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00691 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Lung | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | | | | | | | | | | | |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 3 | 5 | 5 | 5 | 7 | 7 | 5 | 7 | 5 | 6 | 7 | 7 | 4 | 7 | 7 | 4 | 7 | 6 | 4 | 5 | 7 | 7 | 7 | 6 | | 7 | 3 | 6 | 6 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | | |
| | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |

Zymbal's Gland

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Lymphoma Malignant | X | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-----------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------|------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | ANIMAL ID | 0466 | 0478 | 0051 | 0077 | 0052 | 0062 | 0053 | 0036 | 0004 | 0005 | 0066 | 0066 | 0066 | 0055 | 0077 | 0077 | 0077 | 0077 | 0077 | 0055 | 0076 | 0066 | 0003 | 0006 | | |
| | ANIMAL ID | 0499 | 0050 | 0000 | 0011 | 0011 | 0055 | 0077 | 0077 | 0077 | 0066 | 0077 | 0077 | 0077 | 0000 | 0088 | 0088 | 0099 | 0099 | 0099 | 0099 | 0011 | 0011 | 0022 | 0033 | | 0033 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-----------|-----------|
| Esophagus | + | + | + | | + | + | + | + | + | + | + | + | + | + | | | | | | | | | + | + | + | + | + | + | | | 34 |
| Intestine Large, Colon | + | + | A | | + | + | + | + | + | + | A | A | + | + | + | | | | | | | | A | + | + | + | A | + | | | 27 |
| Adenoma | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Intestine Small, Duodenum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Intestine Small, Ileum | + | + | A | | + | + | A | + | + | + | A | A | + | + | + | | | | | | | | A | + | + | + | A | A | | 25 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Intestine Small, Jejunum | | | | | | | | + | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Adenocarcinoma | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 50 | |
| Hemangiosarcoma | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hepatocellular Adenoma, Multiple | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hepatocellular Carcinoma | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Leukemia Granulocytic | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | 3 | |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--|
| | 0466 | 0788 | 0571 | 0727 | 0527 | 0692 | 0582 | 0349 | 0615 | 0446 | 0084 | 0063 | 0066 | 0066 | 0541 | 0722 | 0722 | 0733 | 0754 | 0764 | 0649 | 0677 | 0382 | 0632 | | |
| ANIMAL ID | 04992 | 05001 | 05001 | 05001 | 05001 | 07001 | 07001 | 07001 | 07001 | 07001 | 07001 | 07001 | 07001 | 07001 | 07001 | 08001 | 08001 | 08001 | 08001 | 08001 | 08001 | 08001 | 08001 | 08001 | | |
| Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Pancreas | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 48 | |
| Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Leukemia Granulocytic | X | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | 3 | | |
| Stomach, Forestomach | + | + | A | | + | + | + | + | + | + | + | + | + | + | | | | | | A | + | + | + | + | 32 | |
| Stomach, Glandular | + | + | A | | + | + | + | + | + | + | + | + | + | + | | | | | | A | + | + | + | + | 33 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Granulocytic | X | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | 3 | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 48 | | |
| Adenoma | | | | | | | | | | | | | X | | | | | | | | | | | 2 | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Pheochromocytoma Benign | | X | | | | X | | | | | | | | | | | | | | | | | | 2 | | |
| Bilateral, Pheochromocytoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | 1 | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0466 | 0788 | 0571 | 0727 | 0522 | 0692 | 0582 | 0349 | 0614 | 0546 | 0663 | 0695 | 0644 | 0511 | 0722 | 0772 | 0772 | 0773 | 0540 | 0745 | 0669 | 0667 | 0382 | 0632 | |
| ANIMAL ID | 04992 | 05002 | 05001 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Islets, Pancreatic Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | X | | | | | X | | | | | | | | | | | | | | | | | 4 |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pars Distalis, Adenoma | | | X | X | | | | | X | | | | | X | X | | | | X | X | X | | | X | X | 21 |
| Pars Distalis, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Thyroid Gland | + | + | A | + | + | + | A | + | + | + | A | A | + | + | + | + | + | + | + | A | + | + | + | + | A | 44 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| C-cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | X | | X | 2 |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Coagulating Gland | + | + | A | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | + | A | + | + | + | + | + | 46 |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|------|
| | 0466 | 0788 | 0571 | 0727 | 0522 | 0692 | 0582 | 0349 | 0645 | 0466 | 0014 | 0088 | 0075 | 0066 | 0066 | 0054 | 0071 | 0077 | 0077 | 0077 | 0057 | 0064 | 0067 | 0034 | | 0069 | 0067 | 0038 | 0063 | 0062 |
| ANIMAL ID | 04992 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | 05001 | 05002 | |
| Fat Pad, Epididymal | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Prostate, Dorsal/lateral Lobe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Prostate, Ventral Lobe | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Seminal Vesicle | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 44 |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Testes | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 16 |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

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 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|
| | 0466 | 0708 | 0507 | 0702 | 0502 | 0609 | 0508 | 0304 | 0001 | 0004 | 0006 | 0003 | 0009 | 0005 | 0004 | 0002 | 0007 | 0007 | 0005 | 0007 | 0006 | 0004 | 0007 | 0006 | | 0003 |
| ANIMAL ID | 0492 | 0500 | 0500 | 0501 | 0501 | 0502 | 0502 | 0507 | 0507 | 0507 | 0507 | 0507 | 0507 | 0507 | 0507 | 0507 | 0508 | 0508 | 0508 | 0508 | 0508 | 0508 | 0508 | 0508 | 0508 | 0508 |
| Brachial, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inguinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Sarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Popliteal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Renal, Hemangioma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymph Node, Mandibular Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| Lymph Node, Mesenteric Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spleen Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spleen Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spleen Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Spleen Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Thymus Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Mammary Gland Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
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 Bisphenol A
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0466 | 0708 | 0507 | 0702 | 0502 | 0609 | 0508 | 0304 | 0001 | 0004 | 0006 | 0003 | 0005 | 0006 | 0006 | 0006 | 0005 | 0007 | 0007 | 0005 | 0007 | 0006 | 0006 | 0003 | |
| ANIMAL ID | 04992 | 05000 | 05000 | 05001 | 05011 | 07005 | 07007 | 07007 | 07007 | 07007 | 07007 | 07007 | 07007 | 07007 | 07007 | 08008 | 08008 | 08008 | 08008 | 08008 | 08008 | 08008 | 08008 | 08008 | 08008 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Fibroadenoma, Multiple | X | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Skin | + | | | | | | | | | | | | | | | | | | | | | | | | 19 |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Subcutaneous Tissue, Fibroma | X | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Lipoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Sarcoma | X | | | | | | | | | | | | | | | | | | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Bone | + | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Cranium, Osteosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Bone, Femur | + | | | | | | | | | | | | | | | | | | | | | | | | 50 |
| Skeletal Muscle | + | | | | | | | | | | | | | | | | | | | | | | | | 1 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Brain, Brain Stem | + + A + | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Carcinoma, Deep Invasion | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Brain, Cerebellum | + + A + | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Brain, Cerebrum | + + A + | | | | | | | | | | | | | | | | | | | | | | | | 49 |
| Granular Cell Tumor Benign | X | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|------|---|---|---|-----------|---|-----------|-----------|
| | 0466 | 0781 | 0571 | 0727 | 0522 | 0692 | 0582 | 0349 | 0645 | 0414 | 0633 | 0669 | 0544 | 0722 | 0778 | 0773 | 0754 | 0760 | 0775 | 0649 | | 0667 | 0382 | 0632 | | | | | | | |
| ANIMAL ID | 04992 | 05001 | 05002 | 05001 | 05012 | 07071 | 07072 | 07073 | 07074 | 07075 | 07076 | 07077 | 07078 | 07079 | 07081 | 07082 | 07083 | 07084 | 07085 | 07086 | 07087 | 07088 | 07089 | | | | | | | | |
| Nerve Trigeminal | | | | | | | | + | + | | | | | | | | | | | | | | | | + | + | + | 14 | | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | + | + | | | | | | | | | | | | | | | | + | + | + | 14 | |
| Peripheral Nerve, Tibial | | | | | | | | | | + | + | | | | | | | | | | | | | | | | + | + | + | 14 | |
| Spinal Cord, Cervical | | | | | | | | | | + | + | | | | | | | | | | | | | | | | + | + | + | 14 | |
| Spinal Cord, Lumbar | | | | | | | | | | + | + | | | | | | | | | | | | | | | | + | + | + | 14 | |
| Spinal Cord, Thoracic | | | | | | | | | | + | + | | | | | | | | | | | | | | | | + | + | + | 14 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | + | + | + | + | + | 35 |
| Leukemia Granulocytic | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | 3 | |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Nose | + | + | A | | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | A | + | + | + | + | 32 |
| Leukemia Granulocytic | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | 2 | |
| Squamous Cell Carcinoma | | | | | | X | | | | X | | | | | | | | | | | | | | | | | | | | 2 | |
| Trachea | + | + | A | | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | A | + | + | + | + | 32 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0466 | 0478 | 0451 | 0477 | 0452 | 0465 | 0453 | 0436 | 0464 | 0456 | 0466 | 0466 | 0466 | 0455 | 0472 | 0477 | 0477 | 0477 | 0475 | 0477 | 0466 | 0466 | 0433 | 0466 | |
| ANIMAL ID | 0492 | 0450 | 0450 | 0450 | 0450 | 0477 | 0477 | 0477 | 0477 | 0477 | 0477 | 0477 | 0477 | 0477 | 0488 | 0488 | 0488 | 0488 | 0488 | 0488 | 0488 | 0488 | 0488 | 0488 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 4 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | | |
| | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 6 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | |

Zymbal's Gland + 1

URINARY SYSTEM

Kidney + 50
 Lymphoma Malignant X 3
 Urinary Bladder + + + 4

SYSTEMIC LESIONS

Multiple Organ + 50
 Leukemia Granulocytic X 1
 Lymphoma Malignant X 3

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | 0
3
1
2 | 0
7
2
6 | 0
6
6
1 | 0
7
2
8 | 0
5
4
2 | 0
3
7
3 | 0
5
0
2 | 0
7
0
0 | 0
3
0
1 | 0
6
4
5 | 0
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7 | 0
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1 | 0
4
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4 | 0
7
2
7 | 0
3
0
5 | 0
6
3
8 | 0
6
5
6 | 0
7
2
9 | 0
6
4
9 | 0
7
2
9 | males
(cont...) |
| | ANIMAL ID | 0
0
8
1
1 | 0
0
8
1
2 | 0
0
8
2
1 | 0
0
8
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2 | 0
0
8
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1 | 0
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8
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2 | 0
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4 | 0
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7 | 0
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7 | 0
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1 | 0
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2 | 0
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9
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9
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2 | 0
3
0
3
1 | 0
5
1
3
2 | 0
5
1
4
1 | 0
5
1
4
2 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | | + | + | + | + | + | + | + | | + | + | + | + | + | | + | + | + | | + | | |
| Intestine Large, Colon | + | A | A | | + | + | + | + | + | + | + | | + | + | + | + | + | | A | + | + | | + | | |
| Intestine Large, Rectum
Leiomyosarcoma | | | | | | | | | | | | | + | | | | | | | | | | | | |
| Intestine Small, Ileum
Lymphoma Malignant | + | A | A | | + | + | + | + | + | + | + | | + | + | + | + | + | | A | + | + | | + | | |
| Intestine Small, Jejunum
Adenocarcinoma | | | | | | | | | | | | | + | X | | | | | | | | | | | |
| Liver
Hepatocellular Carcinoma
Histiocytic Sarcoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | | X | + | + | X |
| Mesentery | | | | | | | | | | | | | | | | | | + | + | | | | | + | |
| Pancreas
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + |
| Stomach, Forestomach | + | + | + | | + | + | + | + | + | + | + | | + | + | + | + | + | | A | + | + | | + | | |
| Stomach, Glandular | + | + | + | | + | + | + | + | + | + | + | | + | + | + | + | + | | A | + | + | | + | | |
| Tongue | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|------------------------------------|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| F1 25000BPA M | | 3 | 7 | 6 | 7 | 5 | 3 | 5 | 7 | 3 | 6 | 6 | 7 | 5 | 4 | 3 | 6 | 4 | 7 | 7 | 3 | 6 | 6 | 7 | 6 | |
| ANIMAL ID | | 1 | 2 | 6 | 2 | 4 | 7 | 0 | 0 | 3 | 4 | 8 | 2 | 3 | 6 | 8 | 5 | 6 | 2 | 2 | 0 | 3 | 5 | 6 | 2 | 9 |
| | | 2 | 6 | 1 | 8 | 2 | 3 | 2 | 0 | 1 | 5 | 2 | 7 | 5 | 5 | 7 | 1 | 4 | 6 | 7 | 5 | 8 | 6 | 9 | 9 | 9 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | |
| | | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 4 | 4 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |

Squamous Cell Papilloma

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | ANIMAL ID | 3 | 7 | 6 | 7 | 5 | 3 | 5 | 7 | 3 | 6 | 6 | 7 | 5 | 4 | 3 | 6 | 4 | 7 | 7 | 3 | 6 | 6 | 7 | 6 | |
| | | 1 | 2 | 6 | 2 | 4 | 7 | 0 | 0 | 3 | 4 | 8 | 2 | 3 | 6 | 8 | 5 | 6 | 2 | 2 | 0 | 3 | 5 | 2 | 4 | 2 |
| | | 2 | 6 | 1 | 8 | 2 | 3 | 2 | 0 | 1 | 5 | 2 | 7 | 5 | 5 | 7 | 1 | 4 | 6 | 7 | 5 | 8 | 6 | 9 | 9 | 9 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 |
| | | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 |
| | | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 8 | 9 | 0 | 1 | 1 | 3 | 3 | 4 | 4 | 5 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Seminal Vesicle | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mesothelioma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | + | | | | | | | | | | | + | + | | | | | | | | | | + | |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inguinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Popliteal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
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 Bisphenol A
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|--------------------|
| | 0
3
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| ANIMAL ID | 0
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5
1
3
1 | 0
5
1
4
1 | 0
5
1
4
2 | 0
5
1
4
1 | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Brain, Cerebrum
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Nerve Trigeminal | + | | | | | | | + | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Sciatic | + | | | | | | | + | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Tibial | + | | | | | | | + | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Cervical | + | | | | | | | + | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Lumbar | + | | | | | | | + | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Thoracic | + | | | | | | | + | | | | | | | | | | | | | | | | | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung
Histiocytic Sarcoma
Lymphoma Malignant | + | + | + | | + | + | + | + | + | + | | + | + | + | + | + | | | | + | + | + | | + | | |
| Nose
Lymphoma Malignant | + | + | + | | + | + | + | + | + | + | | + | + | + | + | + | | | | + | + | + | | + | | |
| Trachea | + | + | + | | + | + | + | + | + | + | | + | + | + | + | + | | | | A | + | + | | + | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST | | 5 | 5 | 7 | 3 | 5 | 5 | 6 | 6 | 7 | 4 | 7 | 6 | 6 | 5 | 6 | 5 | 7 | 7 | 5 | 6 | 7 |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 6 | 3 | 2 | 8 | 9 | 1 | 7 | 0 | 1 | 6 | 2 | 5 | 1 | 3 | 3 | 7 | 2 | 2 | 8 | 5 | 6 |
| F1 25000BPA M | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

* TOTALS

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------|
| Esophagus | + | + | | + | + | + | + | + | + | + | | + | + | + | + | | | + | + | | 35 | |
| Intestine Large, Colon | + | + | | + | + | + | + | A | + | + | | + | + | + | + | | | A | + | | 30 | |
| Intestine Large, Rectum | | | | | | | | | | | | | | | | | | | | | 2 | |
| Leiomyosarcoma | | | | | | | | | | | | | | | | | X | | | | 1 | |
| Intestine Small, Ileum | + | + | | + | + | + | + | A | + | A | | + | A | + | + | + | | A | + | | 28 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | X | | | | 1 | |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | 1 | |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | 1 | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | |
| Hepatocellular Carcinoma | | | | | | | | | | | | | | | | | | | | | X | 3 |
| Histiocytic Sarcoma | | | | | | | | | | | | X | | | | X | | | | | 2 | |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | X | | | | 2 | |
| Mesentery | | | | | | | | | | | | | | | | | + | | | | 4 | |
| Pancreas | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 44 | |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | X | | | | 2 | |
| Stomach, Forestomach | + | + | | + | + | + | + | + | + | | | + | + | + | + | | | | + | + | 34 | |
| Stomach, Glandular | + | + | | + | + | + | + | + | + | A | | + | + | + | + | | | | + | + | 33 | |
| Tongue | | | | | | | | | | | | + | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|-----------------|
| | 0560 | 0533 | 0726 | 0384 | 0597 | 0550 | 0662 | 0663 | 0772 | 0743 | 0776 | 0664 | 0565 | 0666 | 0573 | 0725 | 0777 | 0583 | 0651 | 0726 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 51152 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 51152 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 51152 | |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 21212 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 21212 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

Squamous Cell Papilloma

X

1

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Histiocytic Sarcoma | | | | | | | | | | | X | | | | | | | | | | 1 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Histiocytic Sarcoma | | | | | | | | | | | X | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | X | | | X | | | | | | 2 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 45 |
| Lymphoma Malignant | | | | | | | | | | | | X | | | X | | | | | | 2 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 45 |
| Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | 1 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Adenoma | | | | | | | | | X | | | | | | | | | | X | X | 5 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Adenoma | | | | | | X | | | | | | | | | | | | | | | 1 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 45 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | 1 |
| Pars Distalis, Adenoma | | | | | X | X | X | X | | | X | | | X | | | X | | X | X | 17 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 44 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | |
|--|-----------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | 5 | 5 | 7 | 3 | 5 | 5 | 6 | 6 | 7 | 4 | 7 | 6 | 6 | 5 | 6 | 5 | 7 | 7 | 5 | 6 | 7 |
| | | 6 | 3 | 2 | 8 | 9 | 1 | 7 | 0 | 1 | 6 | 2 | 5 | 1 | 3 | 3 | 7 | 2 | 2 | 8 | 5 | 2 |
| | | 0 | 3 | 6 | 4 | 7 | 0 | 2 | 3 | 2 | 3 | 6 | 7 | 4 | 5 | 5 | 3 | 5 | 7 | 3 | 1 | 6 |
| | ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | | |

Lymphoma Malignant

X

1

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| Peritoneum | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Paraganglioma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Coagulating Gland | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
|-------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Epididymis | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Fat Pad, Epididymal | | + | | | | | | | | | | | | | | | | | | | | | | | 1 |
|---------------------|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|--|---|---|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Preputial Gland | | + | + | | | | | + | | | | | | | | | | | | | | | | | 9 |
| Carcinoma | | | X | | | | | | | | | | | | | | | | | | | | | | 3 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Prostate, Dorsal/lateral Lobe | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | X | | | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Prostate, Ventral Lobe | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Adenoma | | | | X | | | | | | | | | X | | | | | | | | | | | | 3 |
| Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | X | | 3 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|
| | 0560 | 0533 | 0572 | 0538 | 0559 | 0551 | 0567 | 0566 | 0577 | 0541 | 0574 | 0566 | 0565 | 0566 | 0555 | 0566 | 0557 | 0577 | 0555 | 0566 | | 0572 |
| ANIMAL ID | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Seminal Vesicle | + | + | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | 43 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Lymphoma Malignant | | | | | | | | | | | | X | | | X | | | | | | | 2 |
| Lymph Node | | | | | | | | | + | | + | + | + | | + | | | | | + | | 11 |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Inguinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Mediastinal, Histiocytic Sarcoma | | | | | | | | | | | | X | | | | | | | | | | 1 |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | X | 2 |
| Popliteal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | X | 2 |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | + | | | | | | + | 4 |
| Lymphoma Malignant | | | | | | | | | | | | | | | X | | | | | | X | 2 |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | + | 3 |
| Lymphoma Malignant | | | | | | | | | | | | | | | X | | | | | | X | 2 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | X | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|
| | 0560 | 0533 | 0572 | 0538 | 0559 | 0551 | 0567 | 0566 | 0577 | 0543 | 0577 | 0566 | 0566 | 0555 | 0566 | 0555 | 0577 | 0577 | 0555 | 0566 | | 0572 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 2 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------|
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | X | | 2 |
| Thymus | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 43 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | X | | 2 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | | 45 | |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Fibroma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | 17 |
| Basal Cell Adenoma | | | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Sebacous Gland, Adenoma | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Subcutaneous Tissue, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | X | | 2 |
| Subcutaneous Tissue, Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Subcutaneous Tissue, Histiocytic Sarcoma, Metastatic, Liver | | | | | | | | | | | | | | | | | | | | | | | X | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-----------|----------|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Rib, Osteosarcoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 46 | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | + | 1 |

NERVOUS SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0560 | 0533 | 0726 | 0384 | 0597 | 0550 | 0672 | 0663 | 0712 | 0463 | 0726 | 0664 | 0565 | 0665 | 0537 | 0775 | 0775 | 0583 | 0661 | 0726 | |
| ANIMAL ID | 0515 | 0516 | 0566 | 0571 | 0571 | 0711 | 0711 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0722 | 0900 | 0900 | 0900 | 0900 | 0900 | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Brain, Cerebrum
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | 46
1 |
| Nerve Trigeminal | | + | | + | | | + | | + | | | + | | | | | | | | | 8 |
| Peripheral Nerve, Sciatic | | + | | + | | | + | | + | | | + | | | | | | | | | 8 |
| Peripheral Nerve, Tibial | | + | | + | | | + | | + | | | + | | | | | | | | | 8 |
| Spinal Cord, Cervical | | + | | + | | | + | | + | | | + | | | | | | | | | 8 |
| Spinal Cord, Lumbar | | + | | + | | | + | | + | | | + | | | | | | | | | 8 |
| Spinal Cord, Thoracic | | + | | + | | | + | | + | | | + | | | | | | | | | 8 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | | + | + | + | + | + | + | | | + | + | + | + | | + | + | + | | 36 |
| Histiocytic Sarcoma | | | | | | | | | | | | X | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | X | | | | 2 |
| Nose | + | + | | + | + | + | + | + | + | | | + | + | + | + | | | + | + | | 35 |
| Lymphoma Malignant | | | | | | | | | | | | | | X | | | | | | | 2 |
| Trachea | + | + | | + | + | + | + | + | + | A | | + | + | + | + | + | | + | + | | 33 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | DAY ON TEST | 5 | 5 | 7 | 3 | 5 | 5 | 6 | 6 | 7 | 4 | 7 | 6 | 6 | 5 | 6 | 5 | 7 | 7 | 5 | 6 | 7 | 2 |
| | | 6 | 3 | 2 | 8 | 9 | 1 | 7 | 0 | 1 | 6 | 2 | 5 | 1 | 3 | 3 | 7 | 2 | 2 | 8 | 5 | 6 | 7 |
| | | 0 | 3 | 6 | 4 | 7 | 0 | 2 | 3 | 2 | 3 | 6 | 7 | 4 | 5 | 5 | 3 | 5 | 7 | 3 | 1 | 6 | 6 |
| | F1 25000BPA M | | | | | | | | | | | | | | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

SPECIAL SENSES SYSTEM

| | | |
|----------------|---|----------|
| Eye | + | 1 |
| Zymbal's Gland | | 1 |
| Adenoma | X | 1 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | |
| Lymphoma Malignant | | | | | | | | | | | X | | X | | | | | | | | 2 |
| Urinary Bladder | | | | | | | | | | + | | | | | | | | | | | 3 |
| Transitional Epithelium, Papilloma | | | | | | | | | | | | | | | | | | | | | 1 |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Histiocytic Sarcoma | | | | | | | | | | | X | | | X | | | | | | | | 2 |
| Lymphoma Malignant | | | | | | | | | | | | X | | | X | | | | | | | 3 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | males
(cont...) | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|---|--|
| | 7 | 6 | 5 | 6 | 7 | 7 | 7 | 7 | 3 | 3 | 7 | 5 | 7 | 5 | 5 | 6 | 5 | 7 | 6 | 6 | 7 | 6 | 6 | 4 | 7 | | | 5 | |
| | 2 | 6 | 5 | 0 | 2 | 0 | 3 | 2 | 7 | 7 | 2 | 8 | 2 | 8 | 4 | 7 | 6 | 2 | 8 | 3 | 2 | 3 | 6 | 2 | 7 | | 0 | | |
| | 7 | 6 | 2 | 8 | 6 | 7 | 0 | 6 | 0 | 6 | 2 | 8 | 6 | 4 | 2 | 2 | 7 | 0 | 9 | 6 | 6 | 1 | 0 | 6 | 8 | | 0 | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | | 0 | |
| | | 9 | 9 | 9 | 9 | 9 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | | 9 | |
| | | 7 | 7 | 8 | 8 | 9 | 3 | 4 | 4 | 5 | 5 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 3 | 3 | 4 | 4 | 7 | 7 | 8 | | 7 | | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | 1 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | | + | | | + | + | | + | + | + | + | | + | + | | + | + | | + | | + | | |
| Intestine Large, Colon | + | A | + | | + | | | + | + | | + | + | + | A | | + | + | | + | + | | + | | + | | |
| Adenocarcinoma | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Intestine Small, Ileum | + | A | + | | + | | | + | + | | + | | A | + | + | A | | + | + | | + | + | | + | | |
| Lymphoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Intestine Small, Jejunum | | | | | | | | | | | + | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | + | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Sarcoma, Metastatic, Spleen | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Acinar Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | X | | | | |
| Stomach, Forestomach | + | + | + | | + | | | + | + | | + | + | + | + | | + | + | | + | + | | + | + | | + | |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Squamous Cell Carcinoma | | | | | X | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | + | + | + | | + | | | + | + | | + | + | + | A | | + | + | | + | + | | + | + | | + | |

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0727 | 0666 | 0552 | 0608 | 0776 | 0777 | 0777 | 0777 | 0332 | 0332 | 0772 | 0558 | 0772 | 0558 | 0554 | 0667 | 0556 | 0772 | 0668 | 0663 | 0772 | 0663 | 0446 | 0772 | 0556 | | |
| | 0097 | 0092 | 0098 | 0098 | 0099 | 0099 | 0091 | 0031 | 0031 | 0031 | 0031 | 0033 | 0052 | 0055 | 0055 | 0055 | 0055 | 0057 | 0077 | 0077 | 0077 | 0077 | 0099 | 0099 | 0099 | 0091 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex
Adenoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adrenal Medulla
Pheochromocytoma Benign
Bilateral, Pheochromocytoma Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + |
| Pituitary Gland
Lymphoma Malignant
Pars Distalis, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thyroid Gland
Lymphoma Malignant
Follicular Cell, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | |
|---|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|--------------------|-----|-----|
| | 077 | 066 | 055 | 066 | 077 | 077 | 077 | 077 | 033 | 033 | 077 | 055 | 077 | 055 | 055 | 066 | 055 | 077 | 066 | 066 | | | 077 | 066 |
| | 27 | 66 | 55 | 08 | 26 | 07 | 03 | 26 | 00 | 06 | 22 | 82 | 28 | 44 | 72 | 62 | 27 | 80 | 39 | 26 | 31 | 60 | 26 | 78 |
| | 097 | 097 | 098 | 099 | 099 | 099 | 031 | 031 | 031 | 031 | 033 | 052 | 052 | 053 | 053 | 053 | 053 | 073 | 073 | 073 | 073 | 091 | 091 | 091 |
| | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Preputial Gland
Carcinoma | | | | | | | + | | | | | | | + | | | | | + | + | | | | |
| | | | | | | | X | | | | | | | X | | | | | X | X | | | | |
| Prostate, Dorsal/lateral Lobe
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Prostate, Ventral Lobe
Adenoma
Adenoma, Multiple
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | X |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + |
| Testes
Interstitial Cell, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | X |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | X |
| Lymph Node | | | | | | | | | | + | + | + | | | | | | + | + | | | | | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|------|------|
| | 0727 | 0666 | 0552 | 0608 | 0776 | 0777 | 0777 | 0777 | 0332 | 0333 | 0772 | 0558 | 0772 | 0558 | 0554 | 0667 | 0556 | 0772 | 0668 | 0663 | | | 0772 | 0663 | 0441 | 0776 | 0552 |
| | 0097 | 0097 | 0098 | 0098 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | |

Lumbar, Lymphoma Malignant
 Mediastinal, Lymphoma Malignant
 Pancreatic, Lymphoma Malignant
 Renal, Lymphoma Malignant

X
 X
 X
 X

Lymph Node, Mandibular
 Lymphoma Malignant

+ + + + +
 X

Spleen
 Lymphoma Malignant
 Sarcoma

+
 X
 X

Thymus
 Lymphoma Malignant

+ + + + + M + + + + + + + + + + + M + + + + + + + +
 X

INTEGUMENTARY SYSTEM

Mammary Gland

M +

Skin

+ +

MUSCULOSKELETAL SYSTEM

Bone
 Cranium, Lymphoma Malignant
 Vertebra, Lymphoma Malignant

+
 X
 X

Bone, Femur

+ +

Skeletal Muscle

+ +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
 RATS MALE
 F1 0.05 EE2 M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 7 | 6 | 5 | 6 | 7 | 7 | 7 | 7 | 3 | 3 | 7 | 5 | 7 | 5 | 5 | 6 | 5 | 7 | 6 | 6 | 7 | 6 | 4 | 7 | 5 |
| | | 2 | 6 | 5 | 0 | 2 | 0 | 3 | 2 | 7 | 2 | 8 | 2 | 8 | 4 | 7 | 6 | 2 | 8 | 3 | 2 | 3 | 6 | 2 | 7 | 8 |
| | | 7 | 6 | 2 | 8 | 6 | 7 | 0 | 6 | 0 | 6 | 2 | 8 | 6 | 4 | 2 | 2 | 7 | 0 | 9 | 6 | 1 | 0 | 6 | 8 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 |
| | | 7 | 7 | 8 | 8 | 9 | 9 | 3 | 3 | 4 | 4 | 5 | 5 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 4 | 4 | 7 | 7 | 8 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

males
(cont...)

Lymphoma Malignant X

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Granular Cell Tumor Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | + | + | | | | | | + | + | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | + | + | | | | | | + | + | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | + | + | | | | | | + | + | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | + | + | | | | | | + | + | | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | + | + | | | | | | + | + | | |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | + | + | | | | | | + | + | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|---|
| Lung | + | + | + | + | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma, Metastatic, Zymbal'S Gland | | | | | | | | | | | | | | | | | | | | | | | X | | + |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|
| | 0727 | 0666 | 0552 | 0608 | 0776 | 0777 | 0777 | 0777 | 0336 | 0336 | 0776 | 0552 | 0778 | 0552 | 0558 | 0664 | 0556 | 0772 | 0668 | 0663 | 0776 | | | 0663 | 0441 | 0776 |
| | 0097 | 0097 | 0098 | 0091 | 0099 | 0093 | 0093 | 0091 | 0091 | 0091 | 0092 | 0092 | 0092 | 0092 | 0093 | 0093 | 0093 | 0093 | 0093 | 0093 | 0093 | 0093 | 0093 | 0093 | 0093 | 0093 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|--|---|--|--|--|---|---|--|---|---|---|---|--|---|---|--|---|---|--|---|--|--|
| Nose Lymphoma Malignant | + | + | + | | + | | | | + | + | | + | + | + | + | | + | + | | + | + | | + | | |
| Trachea | + | + | + | | + | | | | + | + | | + | + | + | + | | + | + | | + | + | | + | | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|---|---|--|---|--|--|--|--|--|--|--|--|--|--|---|---|---|
| Ear Neural Crest Tumor, Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | + | X | |
| Eye | | | | | | | | | | | | | + | + | | + | | | | | | | | | | | | | |
| Zymbal's Gland Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | X |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney Liposarcoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 4 | |
| | | 0 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 1 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | | |
|-----------------------------|---|----|
| Esophagus | + | 17 |
| Intestine Large, Colon | + | 15 |
| Adenocarcinoma | | 1 |
| Lymphoma Malignant | | 1 |
| Intestine Small, Ileum | + | 14 |
| Lymphoma Malignant | | 1 |
| Intestine Small, Jejunum | | 1 |
| Liver | + | 26 |
| Lymphoma Malignant | X | 2 |
| Mesentery | | 1 |
| Pancreas | + | 26 |
| Lymphoma Malignant | X | 2 |
| Sarcoma, Metastatic, Spleen | | 1 |
| Acinar Cell, Adenoma | | 1 |
| Stomach, Forestomach | + | 17 |
| Lymphoma Malignant | | 1 |
| Squamous Cell Carcinoma | | 1 |
| Stomach, Glandular | + | 16 |

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 4 | |
| | | 0 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 1 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

| | | |
|--------------------|---|----|
| Blood Vessel | + | 26 |
| Lymphoma Malignant | X | 1 |
| Heart | + | 26 |
| Lymphoma Malignant | X | 1 |

ENDOCRINE SYSTEM

| | | |
|------------------------------------|---|----|
| Adrenal Cortex | + | 26 |
| Adenoma | | 1 |
| Lymphoma Malignant | X | 2 |
| Adrenal Medulla | + | 26 |
| Pheochromocytoma Benign | | 1 |
| Bilateral, Pheochromocytoma Benign | | 1 |
| Islets, Pancreatic | + | 26 |
| Parathyroid Gland | + | 25 |
| Lymphoma Malignant | X | 1 |
| Pituitary Gland | + | 26 |
| Lymphoma Malignant | X | 2 |
| Pars Distalis, Adenoma | | 12 |
| Thyroid Gland | + | 25 |
| Lymphoma Malignant | X | 1 |
| Follicular Cell, Adenoma | | 1 |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 4 | |
| | | 0 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 1 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

NONE

GENITAL SYSTEM

| | | |
|-------------------------------|---|----|
| Coagulating Gland | + | 26 |
| Epididymis | + | 26 |
| Preputial Gland | | 4 |
| Carcinoma | | 4 |
| Prostate, Dorsal/lateral Lobe | + | 26 |
| Lymphoma Malignant | X | 1 |
| Prostate, Ventral Lobe | + | 26 |
| Adenoma | | 1 |
| Adenoma, Multiple | | 1 |
| Lymphoma Malignant | X | 1 |
| Seminal Vesicle | + | 25 |
| Testes | + | 26 |
| Interstitial Cell, Adenoma | | 1 |

HEMATOPOIETIC SYSTEM

| | | |
|--------------------|---|----|
| Bone Marrow | + | 26 |
| Lymphoma Malignant | X | 2 |
| Lymph Node | + | 7 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
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 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | | DAY ON TEST | ANIMAL ID | * TOTALS |
|---|---|-------------|-----------|----------|
| | | 0 | 0 | |
| | | 4 | 9 | |
| | | 0 | 1 | |
| | | 0 | 8 | |
| | | | 2 | |
| Lumbar, Lymphoma Malignant | X | | | 2 |
| Mediastinal, Lymphoma Malignant | | | | 1 |
| Pancreatic, Lymphoma Malignant | X | | | 2 |
| Renal, Lymphoma Malignant | X | | | 2 |
| Lymph Node, Mandibular | + | | | 6 |
| Lymphoma Malignant | X | | | 2 |
| Spleen | + | | | 26 |
| Lymphoma Malignant | X | | | 2 |
| Sarcoma | | | | 2 |
| Thymus | + | | | 24 |
| Lymphoma Malignant | X | | | 2 |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland | + | | | 25 |
| Skin | | | | 6 |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone | | | | 1 |
| Cranium, Lymphoma Malignant | | | | 1 |
| Vertebra, Lymphoma Malignant | | | | 1 |
| Bone, Femur | + | | | 26 |
| Skeletal Muscle | | | | 2 |

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 X .. Lesion present
 I .. Insufficient tissue

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Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
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 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 4 | |
| | | 0 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 1 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

Lymphoma Malignant

1

NERVOUS SYSTEM

| | | |
|-------------------------------|---|----|
| Brain, Brain Stem | + | 26 |
| Lymphoma Malignant | | 1 |
| Brain, Cerebellum | + | 26 |
| Brain, Cerebrum | + | 26 |
| Granular Cell Tumor Malignant | | 1 |
| Lymphoma Malignant | | 1 |
| Nerve Trigeminal | | 4 |
| Peripheral Nerve, Sciatic | | 4 |
| Peripheral Nerve, Tibial | | 4 |
| Spinal Cord, Cervical | | 4 |
| Spinal Cord, Lumbar | | 4 |
| Spinal Cord, Thoracic | | 4 |

RESPIRATORY SYSTEM

| | | |
|---------------------------------------|---|----|
| Lung | + | 19 |
| Carcinoma, Metastatic, Zymbal'S Gland | | 1 |
| Lymphoma Malignant | X | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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 Test Type: CHRONIC
 Route: GAVAGE
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | | DAY ON TEST | ANIMAL ID | * TOTALS |
|---|---|-------------|-----------|----------|
| | | 0 | | |
| | | 4 | | |
| | | 0 | | |
| | | 0 | | |
| | | 0 | | |
| | | 0 | | |
| | | 9 | | |
| | | 1 | | |
| | | 8 | | |
| | | 2 | | |
| Nose | + | | | 17 |
| Lymphoma Malignant | X | | | 2 |
| Trachea | + | | | 17 |
| SPECIAL SENSES SYSTEM | | | | |
| Ear | | | | 1 |
| Neural Crest Tumor, Benign | | | | 1 |
| Eye | | | | 3 |
| Zymbal's Gland | | | | 1 |
| Carcinoma | | | | 1 |
| URINARY SYSTEM | | | | |
| Kidney | + | | | 26 |
| Liposarcoma | | | | 1 |
| Lymphoma Malignant | X | | | 2 |
| Urinary Bladder | | | | 1 |
| SYSTEMIC LESIONS | | | | |
| Multiple Organ | + | | | 26 |
| Lymphoma Malignant | X | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
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P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|--------------------|
| | 0591 | 07271 | 04726 | 07727 | 05719 | 04714 | 07725 | 05722 | 07711 | 04748 | 07729 | 05779 | 07779 | 04729 | 07707 | 06740 | 07726 | 06728 | 07784 | 06774 | 06709 | 07788 | 07727 | 04763 | | |
| | 010 | 011 | 011 | 011 | 011 | 013 | 013 | 013 | 013 | 013 | 013 | 015 | 015 | 015 | 015 | 015 | 015 | 017 | 017 | 017 | 017 | 019 | 019 | 019 | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | | | + | + | | | + | + | + | | | | | + | + | | | | + | + | + | | + | |
| Intestine Large, Colon | + | | A | | | + | + | | A | + | + | | | | | + | + | | | | | + | + | + | | A |
| Intestine Small, Ileum | + | | A | | | + | + | | A | + | + | | | | | + | + | | | | | A | + | + | | A |
| Liver | + | + | A | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hepatocellular Adenoma | | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Hepatocellular Carcinoma | | | | | X | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | + | | | | | | | | | | | | | | | | |
| Pancreas | + | + | A | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Acinar Cell, Adenoma | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | + | | A | | | + | + | | + | + | + | | | | | + | + | + | | | | + | + | + | + | |
| Stomach, Glandular | + | | A | | | + | + | | A | + | + | | | | | + | + | | | | | + | + | + | + | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | |
|---|-----------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | ANIMAL ID | 0591 | 07271 | 04726 | 07727 | 05719 | 04714 | 07725 | 05712 | 07741 | 04778 | 07729 | 07779 | 07777 | 06767 | 07722 | 07728 | 06774 | 06779 | 07728 | 07777 | | 04722 | 06773 |
| | | 010091 | 01102 | 01101 | 01101 | 01101 | 01303 | 01303 | 01303 | 01303 | 01303 | 01303 | 01505 | 01505 | 01505 | 01505 | 01505 | 01707 | 01707 | 01707 | 01707 | | 01707 | 01707 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | X | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Bilateral, Pheochromocytoma Benign | | | | | | | | | | | | X | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | | | | | X | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | |
| Pars Distalis, Adenoma | | | | X | X | X | | | | | | | | | | | | | X | X | | | | |
| Thyroid Gland | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coagulating Gland | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ductus Deferens | | | | | | | | | | | | | | | | | | | | | | | | |

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 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|---|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | | 0591 | 07271 | 04716 | 07727 | 05719 | 04714 | 07725 | 05721 | 07741 | 04788 | 07729 | 05770 | 07740 | 04766 | 07725 | 05788 | 07788 | 04744 | 07709 | 05788 | 07727 | 04763 | | | |
| ANIMAL ID | | 010091 | 01102 | 01101 | 01101 | 01101 | 01303 | 01303 | 01303 | 01303 | 01303 | 01505 | 01505 | 01505 | 01505 | 01505 | 01707 | 01707 | 01707 | 01707 | 01707 | 01909 | 01909 | 01909 | | |
| Epididymis | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Preputial Gland | | | | + | + | | + | | | | | | | | + | | | | | + | + | | | | | |
| Adenoma | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| Prostate, Dorsal/lateral Lobe | | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Prostate, Ventral Lobe | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Adenoma | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | X | | |
| Seminal Vesicle | | + | + | A | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | A | + | + | + | + | | |
| Testes | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | + | + | | + | + | | | | | | + | | | |
| Axillary, Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | |
| Brachial, Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | |
| Cervical, Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0591 | 0777 | 0471 | 0776 | 0779 | 0544 | 0775 | 0752 | 0571 | 0744 | 0778 | 0779 | 0777 | 0779 | 0670 | 0746 | 0778 | 0674 | 0669 | 0788 | 0778 | 0679 | 0778 | 0463 | | |
| | 0100 | 0111 | 0111 | 0111 | 0111 | 0333 | 0333 | 0333 | 0333 | 0333 | 0555 | 0555 | 0555 | 0555 | 0555 | 0777 | 0777 | 0777 | 0777 | 0777 | 0999 | 0999 | 0999 | 0999 | | |
| | 0091 | 0092 | 0101 | 0102 | 0111 | 0112 | 0221 | 0222 | 0226 | 0227 | 0441 | 0442 | 0441 | 0442 | 0443 | 0441 | 0442 | 0441 | 0442 | 0441 | 0442 | 0551 | 0552 | 0551 | | |

Renal, Lymphoma Malignant

X

Lymph Node, Mandibular
Lymphoma Malignant

+ +

Lymph Node, Mesenteric
Lymphoma Malignant

+
X

Spleen
Lymphoma Malignant

+ + A +

Thymus
Lymphoma Malignant

+ M +

INTEGUMENTARY SYSTEM

Mammary Gland
Adenocarcinoma
Fibroma
Histiocytic Sarcoma
Lipoma
Lymphoma Malignant

+ + A +
 X
 X
 X
 X

Skin
Basal Cell Adenoma
Basal Cell Carcinoma
Squamous Cell Papilloma
Subcutaneous Tissue, Histiocytic Sarcoma
Subcutaneous Tissue, Lipoma

+
 X
 X
 X
 X

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|--|
| | 0591 | 07271 | 04726 | 07727 | 05759 | 04744 | 07755 | 05721 | 07748 | 05779 | 07722 | 07722 | 07722 | 07707 | 06740 | 07726 | 07722 | 07722 | 06774 | 06670 | 07728 | 07727 | 04726 | 07727 | | |
| ANIMAL ID | 01091 | 01100 | 01101 | 01111 | 01111 | 03133 | 03333 | 03333 | 03333 | 05355 | 05555 | 05555 | 05555 | 05555 | 07577 | 07777 | 07777 | 07777 | 07777 | 07777 | 09799 | 09999 | 09999 | 09999 | | |
| Lung
Lymphoma Malignant | + | | A | | | + | + | | | + | + | | | | + | + | | | | + | + | + | | + | | |
| Nose
Lymphoma Malignant | + | | A | | | + | + | | | + | + | | | | + | + | | | | A | + | + | | + | | |
| Trachea
Lymphoma Malignant | + | | A | | | + | + | | | + | + | | | | + | + | | | | A | + | + | | + | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye
Lymphoma Malignant | | | | + | | | | | | | | | | | | | | | | | | | | | + | |
| Zymbal's Gland
Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | + | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ
Histiocytic Sarcoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

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 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|-----------------------|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0
5
6
0 | |
| | ANIMAL ID | 0
9
2
6
2 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | | |
|--------------------------|---|----|
| Esophagus | + | 14 |
| Intestine Large, Colon | + | 11 |
| Intestine Small, Ileum | + | 10 |
| Liver | + | 25 |
| Hepatocellular Adenoma | | 1 |
| Hepatocellular Carcinoma | | 1 |
| Lymphoma Malignant | | 1 |
| Mesentery | | 1 |
| Pancreas | + | 25 |
| Lymphoma Malignant | | 1 |
| Acinar Cell, Adenoma | | 1 |
| Stomach, Forestomach | + | 15 |
| Stomach, Glandular | + | 12 |

CARDIOVASCULAR SYSTEM

| | | |
|--------------------|---|----|
| Blood Vessel | + | 26 |
| Heart | + | 26 |
| Lymphoma Malignant | | 1 |

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 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0 | |
| | | 5 | |
| | | 6 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 6 | |
| | | 2 | |
| | | | * TOTALS |

ENDOCRINE SYSTEM

| | | |
|------------------------------------|---|----|
| Adrenal Cortex | + | 26 |
| Lymphoma Malignant | | 1 |
| Adrenal Medulla | + | 26 |
| Bilateral, Pheochromocytoma Benign | | 1 |
| Islets, Pancreatic | + | 26 |
| Parathyroid Gland | + | 25 |
| Adenoma | | 1 |
| Pituitary Gland | + | 26 |
| Lymphoma Malignant | | 1 |
| Pars Distalis, Adenoma | X | 6 |
| Thyroid Gland | + | 25 |
| Lymphoma Malignant | | 1 |

GENERAL BODY SYSTEM

| | | |
|------------|--|---|
| Tissue NOS | | 1 |
|------------|--|---|

GENITAL SYSTEM

| | | |
|-------------------|---|----|
| Coagulating Gland | + | 25 |
| Ductus Deferens | | 1 |

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Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | ANIMAL ID | |
|---|-------------|-----------|-----------------|
| | | | |
| | 0 | | |
| | 5 | | |
| | 6 | | |
| | 0 | | |
| | 0 | | |
| | 9 | | |
| | 2 | | |
| | 6 | | |
| | 2 | | |
| | | | * TOTALS |

| | | | |
|-------------------------------|---|--|-----------|
| Epididymis | + | | 26 |
| Lymphoma Malignant | | | 1 |
| Preputial Gland | | | 6 |
| Adenoma | | | 1 |
| Carcinoma | | | 1 |
| Prostate, Dorsal/lateral Lobe | + | | 25 |
| Lymphoma Malignant | | | 1 |
| Prostate, Ventral Lobe | + | | 26 |
| Adenoma | | | 2 |
| Lymphoma Malignant | | | 1 |
| Seminal Vesicle | + | | 23 |
| Testes | + | | 26 |

HEMATOPOIETIC SYSTEM

| | | | |
|---------------------------------|---|--|-----------|
| Bone Marrow | + | | 25 |
| Lymphoma Malignant | | | 1 |
| Lymph Node | + | | 6 |
| Axillary, Lymphoma Malignant | | | 1 |
| Brachial, Lymphoma Malignant | | | 1 |
| Cervical, Lymphoma Malignant | | | 1 |
| Lumbar, Lymphoma Malignant | | | 1 |
| Mediastinal, Lymphoma Malignant | | | 1 |
| Pancreatic, Lymphoma Malignant | | | 1 |

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 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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 Test Type: CHRONIC
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 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | | DAY ON TEST | ANIMAL ID | * TOTALS |
|---|---|-------------|-----------|----------|
| | | 0 | | |
| | | 5 | | |
| | | 6 | | |
| | | 0 | | |
| | | 0 | | |
| | | 9 | | |
| | | 2 | | |
| | | 2 | | |
| | | 6 | | |
| | | 2 | | |
| Renal, Lymphoma Malignant | | | | 1 |
| Lymph Node, Mandibular
Lymphoma Malignant | | | | 7
1 |
| Lymph Node, Mesenteric
Lymphoma Malignant | | | | 1
1 |
| Spleen
Lymphoma Malignant | + | | | 25
1 |
| Thymus
Lymphoma Malignant | + | | | 25
1 |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland
Adenocarcinoma | + | | | 25
1 |
| Fibroma | | | | 2 |
| Histiocytic Sarcoma | | | | 1 |
| Lipoma | | | | 1 |
| Lymphoma Malignant | | | | 1 |
| Skin | | | | 7 |
| Basal Cell Adenoma | | | | 1 |
| Basal Cell Carcinoma | | | | 1 |
| Squamous Cell Papilloma | | | | 1 |
| Subcutaneous Tissue, Histiocytic Sarcoma | | | | 1 |
| Subcutaneous Tissue, Lipoma | | | | 2 |

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 + .. Tissue examined microscopically
 X .. Lesion present
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M .. Missing tissue
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Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0 | |
| | | 5 | |
| | | 6 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 6 | |
| | | 2 | |
| | | | * TOTALS |

MUSCULOSKELETAL SYSTEM

| | | |
|-------------|---|----|
| Bone | | 1 |
| Bone, Femur | + | 26 |

NERVOUS SYSTEM

| | | |
|-------------------------------|---|----|
| Brain, Brain Stem | + | 26 |
| Brain, Cerebellum | + | 26 |
| Granular Cell Tumor Malignant | | 1 |
| Brain, Cerebrum | + | 26 |
| Lymphoma Malignant | | 1 |
| Meningioma Benign | | 1 |
| Nerve Trigeminal | | 3 |
| Peripheral Nerve, Sciatic | | 3 |
| Peripheral Nerve, Tibial | | 3 |
| Spinal Cord, Cervical | | 3 |
| Spinal Cord, Lumbar | | 3 |
| Spinal Cord, Thoracic | | 3 |

RESPIRATORY SYSTEM

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Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | | DAY ON TEST | ANIMAL ID | * TOTALS |
|---|---|-------------|-----------|----------|
| | | 0 | | |
| | | 5 | | |
| | | 6 | | |
| | | 0 | | |
| | | 0 | | |
| | | 9 | | |
| | | 2 | | |
| | | 6 | | |
| | | 2 | | |
| Lung | + | | | 13 |
| Lymphoma Malignant | | | | 1 |
| Nose | + | | | 12 |
| Lymphoma Malignant | | | | 1 |
| Trachea | + | | | 12 |
| Lymphoma Malignant | | | | 1 |
| SPECIAL SENSES SYSTEM | | | | |
| Eye | | | | 2 |
| Lymphoma Malignant | | | | 1 |
| Zymbal's Gland | | | | 1 |
| Carcinoma | | | | 1 |
| URINARY SYSTEM | | | | |
| Kidney | + | | | 26 |
| Lymphoma Malignant | | | | 1 |
| SYSTEMIC LESIONS | | | | |
| Multiple Organ | + | | | 26 |
| Histiocytic Sarcoma | | | | 1 |
| Lymphoma Malignant | | | | 1 |

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|--|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | F1 Veh. StDose M | 6 | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 5 | 6 | 6 | 7 | 6 | 4 | 7 | 7 | 7 | 5 | 5 | 7 | 6 | 6 | 6 | 7 | 6 |
| | | 7 | 7 | 2 | 2 | 2 | 9 | 2 | 1 | 5 | 4 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 5 | 7 | 0 | 0 | 9 | 6 | 2 | 9 |
| | | 6 | 6 | 7 | 7 | 7 | 8 | 7 | 1 | 5 | 7 | 2 | 7 | 4 | 9 | 8 | 8 | 9 | 6 | 5 | 6 | 0 | 0 | 8 | 4 | 6 |
| | | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | |
| | | 1 | 1 | 2 | 2 | 3 | 4 | 4 | 5 | 5 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 3 | 3 | 4 | 4 | |
| | | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | | | | + | | + | + | + | + | | + | + | | | | | | | + | A | + | + | + | + | + | | |
| Intestine Large, Cecum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon
Adenocarcinoma
Adenoma | + | + | | | + | | A | | + | + | A | + | | A | A | | | | | | + | A | A | A | + | A | | + | |
| Intestine Small, Ileum | + | + | | | | | A | | + | + | A | + | | A | A | | | | | | | + | A | A | A | + | A | | + |
| Intestine Small, Jejunum
Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver
Hepatocellular Adenoma
Leukemia Mononuclear
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oral Mucosa
Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas
Lymphoma Malignant
Acinar Cell, Adenoma | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + |
| Stomach, Forestomach | + | + | | | | | + | | + | + | + | + | | + | + | | | | | | | + | A | + | A | + | + | | + |

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 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | 6 | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 5 | 6 | 6 | 7 | 6 | 4 | 7 | 7 | 7 | 5 | 5 | 7 | 6 | 6 | 6 | 7 | 6 | |
| | 7 | 7 | 2 | 2 | 2 | 9 | 2 | 1 | 5 | 4 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 5 | 7 | 0 | 0 | 9 | 6 | 2 | 9 | |
| | 6 | 6 | 7 | 7 | 7 | 8 | 7 | 1 | 5 | 7 | 2 | 7 | 4 | 9 | 8 | 8 | 9 | 6 | 5 | 6 | 0 | 0 | 8 | 4 | 6 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | |
| F1 Veh. StDose M | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | |
| | 1 | 1 | 2 | 2 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 4 | 4 | 4 | | |
| | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

males
(cont...)

Squamous Cell Papilloma

Stomach, Glandular

+ + A +

CARDIOVASCULAR SYSTEM

Blood Vessel

+ +

Heart

+ +

Leukemia Mononuclear

Lymphoma Malignant

ENDOCRINE SYSTEM

Adrenal Cortex

+ + + + + A +

Leukemia Mononuclear

Lymphoma Malignant

Adrenal Medulla

+ + + + + A +

Pheochromocytoma Benign

Pheochromocytoma Malignant

X X X

Islets, Pancreatic

+ +

Adenoma

X X

Parathyroid Gland

+ +

Adenoma

X

Pituitary Gland

+ +

Leukemia Mononuclear

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0676 | 0677 | 0672 | 0677 | 0677 | 0676 | 0677 | 0676 | 0675 | 0676 | 0676 | 0677 | 0676 | 0674 | 0677 | 0677 | 0677 | 0675 | 0675 | 0677 | 0676 | 0676 | 0676 | 0677 | | |
| | 076 | 077 | 072 | 077 | 077 | 078 | 077 | 071 | 075 | 074 | 072 | 072 | 074 | 079 | 078 | 078 | 079 | 075 | 075 | 070 | 070 | 079 | 076 | 076 | 076 | |
| | 011 | 011 | 011 | 011 | 011 | 011 | 011 | 011 | 011 | 013 | 013 | 013 | 013 | 013 | 013 | 013 | 013 | 013 | 013 | 013 | 015 | 015 | 015 | 015 | 015 | |
| | 221 | 222 | 222 | 222 | 222 | 223 | 224 | 225 | 227 | 223 | 223 | 223 | 223 | 223 | 223 | 223 | 224 | 224 | 224 | 224 | 225 | 225 | 225 | 225 | 225 | |
| | 111 | 112 | 111 | 112 | 113 | 114 | 111 | 112 | 115 | 117 | 118 | 118 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | 119 | |

Pars Distalis, Adenoma

X X

Thyroid Gland

+ + + + + A + + + + + + + + + + + A A A + A + +

C-cell, Carcinoma

X

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Coagulating Gland

+ + + + + A + + + + + + A + + + + + A + + + + + +

Epididymis

+ + + + + + + + + + + + + + + + A + + + + + +

Preputial Gland
Carcinoma

+ + + X X + + + + + + + + + + X + + + + X

Prostate, Dorsal/lateral Lobe

+ + + + + A + + + + + + + + + + A + + + + + +

Prostate, Ventral Lobe
Adenoma
Adenoma, Multiple

+ + + + + A + + + + + + + + + + X + + + + + +

Seminal Vesicle

+ + + + + A + + + A + + A A + + + + A A + + A + +

Testes
Interstitial Cell, Adenoma

+ + + + + + + + + + + + + + + + A + + + + + X

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | |
|--|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | 0 |
| | | 6 | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 5 | 6 | 6 | 7 | 6 | 4 | 7 | 7 | 7 | 5 | 5 | 7 | 6 | 6 | 6 | 7 | 6 |
| | | 7 | 7 | 2 | 2 | 2 | 9 | 2 | 1 | 5 | 4 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 5 | 7 | 0 | 0 | 9 | 6 | 2 | 9 |
| | | 6 | 6 | 7 | 7 | 7 | 8 | 7 | 1 | 5 | 7 | 2 | 7 | 4 | 9 | 8 | 8 | 9 | 6 | 5 | 6 | 0 | 0 | 8 | 4 | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 |
| | | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 4 | 4 | 5 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bone Marrow | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | + | | | + | | | + | | | + | + | | | | | | | | | + | | + | | | + | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | | | | | A | | | | | + | | | | | | | | | | | + | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Squamous Cell Carcinoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|--|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 6 | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 5 | 6 | 6 | 7 | 6 | 4 | 7 | 7 | 7 | 5 | 5 | 7 | 6 | 6 | 6 | 7 | 6 |
| | F1 Veh. StDose M | 7 | 7 | 2 | 2 | 2 | 9 | 2 | 1 | 5 | 4 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 5 | 7 | 0 | 0 | 9 | 6 | 2 | 9 |
| | | 6 | 6 | 7 | 7 | 7 | 8 | 7 | 1 | 5 | 7 | 2 | 7 | 4 | 9 | 8 | 8 | 9 | 6 | 5 | 6 | 0 | 0 | 8 | 4 | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | |
| | | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 3 | 3 | 4 | 4 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | | | | |

| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|---|---|--|--|--|---|--|---|---|---|---|--|--|---|---|--|--|--|---|---|---|---|---|---|---|---|
| Lung | | + | + | | | | + | | + | + | + | + | | | + | + | | | | + | + | + | + | + | + | + | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | | + | + | | | | A | | + | + | + | + | | | + | + | | | | + | A | + | + | + | + | + | |
| Trachea | | + | + | | | | A | | + | + | + | + | | | + | + | | | | + | A | + | A | + | A | + | + |

| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Eye | | + | | | | | | | | | | | | | | | | | | | | | | | | | |

| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | ANIMAL ID | 6 | 7 | 6 | 7 | 7 | 7 | 6 | 6 | 5 | 6 | 0 | 7 | 6 | 6 | 7 | 7 | 4 | 7 | 3 | 6 | 6 | 5 | 7 | 5 | 5 | 5 |
| | 6 | 7 | 4 | 2 | 2 | 1 | 1 | 3 | 7 | 0 | 4 | 2 | 6 | 2 | 2 | 2 | 2 | 8 | 2 | 9 | 7 | 7 | 5 | 2 | 1 | 4 | 2 |
| | 1 | 7 | 4 | 8 | 9 | 5 | 7 | 7 | 9 | 6 | 8 | 7 | 7 | 2 | 7 | 7 | 4 | 7 | 3 | 6 | 6 | 5 | 7 | 5 | 9 | 2 | 2 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| 5 | 5 | 5 | 5 | 5 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | |
| 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Esophagus | + | + | | | + | + | + | + | + | + | | + | + | | | + | + | + | + | + | + | | + | + | | | 32 |
| Intestine Large, Cecum | | | | | | | | | | | | | | | | | | | + | | | | | | | | 1 |
| Intestine Large, Colon | + | | + | | | + | + | + | + | + | A | | A | + | | | + | + | + | A | + | | A | A | | | 21 |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Adenoma | | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Intestine Small, Ileum | + | | + | | | + | + | + | + | + | A | | A | + | | | + | + | + | A | + | | A | A | | | 20 |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | + | | | | | | | 1 |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | X | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | X | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | | | 1 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | + | | | 1 |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | X | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Acinar Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Stomach, Forestomach | + | | + | | | + | + | + | + | + | + | | + | + | | | + | + | + | + | + | + | + | + | + | + | 31 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|----|---|----|
| | 0681 | 0727 | 0644 | 0728 | 0779 | 0775 | 0667 | 0667 | 0559 | 0669 | 0600 | 0742 | 0662 | 0672 | 0772 | 0448 | 0722 | 0379 | 0667 | 0665 | | 0572 | 0751 | 0594 | 0552 | | | |
| ANIMAL ID | 05552 | 05561 | 05566 | 05571 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| Stomach, Glandular | + | + | + | | | + | + | + | + | + | A | | + | + | | | + | | + | + | + | + | | + | A | 30 | | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Pheochromocytoma Benign | | | X | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Pheochromocytoma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | | | | | 1 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Adenoma | X | X | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pituitary Gland | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 46 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---------|--------------|----|
| | 0681 | 0727 | 0644 | 0728 | 0779 | 0775 | 0667 | 0663 | 0559 | 0669 | 0004 | 0727 | 0667 | 0662 | 0772 | 0772 | 0484 | 0727 | 0339 | 0662 | 0667 | 0553 | 0725 | 0521 | 0542 | | |
| ANIMAL ID | 05552 | 05561 | 05562 | 05571 | 05572 | 05574 | 05574 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | |
| Pars Distalis, Adenoma | | X | X | X | X | X | | X | | | X | X | X | X | X | | | | | X | | X | X | | | 29 | |
| Thyroid Gland
C-cell, Carcinoma | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | 43
1 | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | 45 | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Preputial Gland
Carcinoma | | | + | | | | | | + | | | | | + | | | | + | | | + | | | X | 14
6 | | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | 46 | |
| Prostate, Ventral Lobe
Adenoma
Adenoma, Multiple | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
3
1 | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | A | + | + | A | A | 39 |
| Testes
Interstitial Cell, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49
1 | |

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|------|------|
| | 0681 | 0727 | 0644 | 0728 | 0779 | 0775 | 0667 | 0663 | 0559 | 0667 | 0003 | 0704 | 0667 | 0002 | 0707 | 0707 | 0408 | 0702 | 0309 | 0607 | | 0603 | 0505 | 0702 | 0503 | 0701 | 0504 | 0502 |
| ANIMAL ID | 0555 | 0555 | 0556 | 0557 | 0557 | 0744 | 0744 | 0555 | 0555 | 0555 | 0555 | 0555 | 0555 | 0555 | 0555 | 0333 | 0333 | 0444 | 0555 | 0555 | 0666 | 0666 | 0999 | 0999 | 0999 | 0999 | 0999 | 0999 |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Lymph Node | | + | + | | | | | | | | | | | + | | | | | | | | + | + | + | + | + | | 16 |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Renal, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Lymph Node, Mandibular | | | | | | | | | + | | | | | + | + | | | | | | | + | | | + | + | | 8 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Squamous Cell Carcinoma, Metastatic, Skin | | | | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | | + | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Thymus | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0681 | 0727 | 0644 | 0728 | 0772 | 0775 | 0667 | 0667 | 0559 | 0666 | 0004 | 0706 | 0662 | 0672 | 0707 | 0408 | 0702 | 0309 | 0607 | 0662 | 0503 | 0705 | 0502 | 0504 | |
| ANIMAL ID | 05552 | 05561 | 05562 | 05571 | 05572 | 05574 | 05574 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|---|--|--|---|---|---|--|--|--|--|---|---|--|--|--|--|---|--|---|---|---|--|----|
| Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Skin | + | | + | | | + | + | + | | | | | + | + | | | | | + | | + | + | + | | 21 |
| Basal Cell Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Subcutaneous Tissue, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Lipoma | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Subcutaneous Tissue, Schwannoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Mandible, Squamous Cell Carcinoma, Deep Invasion | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Granular Cell Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|
| | 0681 | 0727 | 0644 | 0728 | 0779 | 0775 | 0667 | 0667 | 0559 | 0669 | 0003 | 0704 | 0667 | 0662 | 0772 | 0772 | 0484 | 0722 | 0397 | 0679 | 0662 | 0553 | 0725 | 0521 | 0559 | | 0542 |
| ANIMAL ID | 0552 | 0556 | 0556 | 0557 | 0557 | 0744 | 0744 | 0755 | 0755 | 0755 | 0755 | 0755 | 0755 | 0755 | 0755 | 0933 | 0933 | 0933 | 0933 | 0933 | 0933 | 0933 | 0933 | 0933 | 0933 | 0933 | 0933 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|---|----|
| Lung | + | | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 36 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | | | |
| Nose | + | + | | | + | + | + | + | + | A | | + | + | | | + | + | + | + | + | + | + | + | + | + | + | 30 | | |
| Trachea | + | + | | | + | + | + | + | + | A | | + | + | | | + | + | + | + | + | + | + | + | + | A | 27 | | | |

| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 2 |

| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
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Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|
| | 0675 | 0727 | 0396 | 0728 | 0776 | 0436 | 0728 | 0620 | 0661 | 0779 | 0529 | 0672 | 0787 | 0678 | 0518 | 0668 | 0776 | 0777 | 0670 | 0482 | 0350 | 0730 | 0537 | 0556 | |
| ANIMAL ID | 0137 | 0133 | 0133 | 0133 | 0133 | 0133 | 0134 | 0134 | 0134 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|--|---|--|---|---|---|---|---|---|---|--|---|---|---|--|--|--|---|---|---|---|---|
| Stomach, Forestomach
Squamous Cell Papilloma | + | + | | + | | + | | + | + | | + | + | | + | + | + | | | | + | + | + | + | + |
| Stomach, Glandular
Adenoma | + | + | | + | | + | + | | + | + | | | | A | + | + | | | | + | + | + | | + |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel
Leukemia Granulocytic
Mesothelioma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart
Leukemia Granulocytic
Mesothelioma Malignant
Schwannoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex
Adenoma
Leukemia Granulocytic | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Adrenal Medulla
Pheochromocytoma Benign
Pheochromocytoma Malignant
Bilateral, Pheochromocytoma Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic
Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
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 First Dose M/F: 09/25/12 / 09/25/12
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0675 | 0727 | 0392 | 0788 | 0772 | 0436 | 0772 | 0660 | 0661 | 0757 | 0522 | 0678 | 0677 | 0568 | 0658 | 0772 | 0777 | 0660 | 0442 | 0330 | 0737 | 0553 | 0775 | 0556 | | |
| | 0137 | 0133 | 0138 | 0138 | 0133 | 0133 | 0144 | 0144 | 0144 | 0144 | 0155 | 0155 | 0155 | 0155 | 0155 | 0155 | 0155 | 0155 | 0155 | 0155 | 0155 | 0155 | 0155 | 0155 | | |

Carcinoma

Parathyroid Gland
 Leukemia Granulocytic

Pituitary Gland
 Leukemia Granulocytic
 Pars Distalis, Adenoma
 Pars Intermedia, Adenoma

Thyroid Gland
 Leukemia Granulocytic
 C-cell, Adenoma
 Follicular Cell, Adenoma

GENERAL BODY SYSTEM

Tissue NOS
 Mesothelioma Malignant

GENITAL SYSTEM

Bulbourethral Gland

Coagulating Gland
 Leukemia Granulocytic

Epididymis
 Leukemia Granulocytic

Preputial Gland

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|-----------|--------------------|
| | 0675 | 0772 | 0396 | 0728 | 0776 | 0433 | 0728 | 0660 | 0661 | 0772 | 0552 | 0672 | 0676 | 0551 | 0668 | 0677 | 0772 | 0777 | 0660 | 0442 | 0330 | 0773 | 0556 | 0675 | 0676 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 01337711 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 02337711 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 03338900 | | |
| | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 07781221 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 01212211 | | |

Carcinoma
 Squamous Cell Papilloma
 Bilateral, Carcinoma

X X X

Prostate, Dorsal/lateral Lobe
 Leukemia Granulocytic

+ +

Prostate, Ventral Lobe
 Adenoma
 Adenoma, Multiple
 Leukemia Granulocytic

+ + + + + + + + + + + + + A + + + + + + + + + + + + +

Seminal Vesicle
 Leukemia Granulocytic

+ + + + + + + A + + + + + + A + + + + + + + + + + + + +

Testes
 Seminoma Benign

+ +

HEMATOPOIETIC SYSTEM

Bone Marrow
 Leukemia Granulocytic

+ + + + + + + + + + + + + A + + + + + + + + + + + + +

Lymph Node
 Brachial, Leukemia Granulocytic
 Cervical, Leukemia Granulocytic
 Inguinal, Leukemia Granulocytic
 Lumbar, Leukemia Granulocytic
 Mediastinal, Leukemia Granulocytic
 Renal, Leukemia Granulocytic

+ + + + + + + + + + + + + + + + +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0675 | 0727 | 0398 | 0728 | 0727 | 0436 | 0722 | 0660 | 0661 | 0727 | 0529 | 0672 | 0728 | 0677 | 0518 | 0668 | 0727 | 0727 | 0677 | 0480 | 0352 | 0730 | 0537 | 0556 | 0556 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 01371 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 03337 | |
| | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 71281 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 21212 | |

Skeletal Muscle
 Mesothelioma Malignant

+
 X

NERVOUS SYSTEM

Brain, Brain Stem
 Leukemia Granulocytic

+ +

Brain, Cerebellum
 Leukemia Granulocytic

+ +

Brain, Cerebrum
 Granular Cell Tumor Benign
 Leukemia Granulocytic

+ +

RESPIRATORY SYSTEM

Lung
 Leukemia Granulocytic
 Mesothelioma Malignant

+
 X

Nose
 Leukemia Granulocytic

+ +

Trachea

+ + + + A + A + A + + + + + + + + + + + + +

SPECIAL SENSES SYSTEM

Eye

+

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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Experiment Number: 10034 - 04
 Test Type: CHRONIC
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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
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 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|--|-----------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | | 0675 | 0727 | 0396 | 0728 | 0727 | 0436 | 0722 | 0660 | 0661 | 0727 | 0529 | 0672 | 0767 | 0667 | 0518 | 0668 | 0776 | 0772 | 0772 | 0670 | 0482 | 0350 | 0730 | 0576 | | 0556 |
| | | 0137 | 0133 | 0133 | 0133 | 0133 | 0134 | 0134 | 0134 | 0134 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | | 0135 |
| | ANIMAL ID | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 |

Lacrimal Gland

+

Zymbal's Gland
 Carcinoma

+

URINARY SYSTEM

Kidney +
 Leukemia Granulocytic
 Lipoma X
 Liposarcoma X
 Mesenchymal Tumor Malignant X

Urinary Bladder

+

SYSTEMIC LESIONS

Multiple Organ +
 Leukemia Granulocytic
 Mesothelioma Malignant X

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|------|-----------------------|---|
| | 0596 | 0725 | 0726 | 0683 | 0530 | 0726 | 0450 | 0596 | 0660 | 0660 | 0571 | 0722 | 0725 | 0628 | 0555 | 0556 | 0699 | 0728 | 0661 | 0579 | | 0649 | 0649 | 0644 | 0644 | 0689 | 0699 | 0622 | |
| ANIMAL ID | 0571 | 0577 | 0577 | 0573 | 0573 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0944 | 0944 | 0944 | 0944 | 0944 | 0944 | 0944 | 0944 | |
| Stomach, Forestomach
Squamous Cell Papilloma | + | | | + | + | | | + | + | + | + | + | | | + | + | + | + | | | + | + | + | + | + | | | 33
1 | |
| Stomach, Glandular
Adenoma | + | | | + | + | | | + | + | + | + | + | | | + | + | A | + | | | + | + | + | A | + | | | 29
1 | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel
Leukemia Granulocytic
Mesothelioma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | X | + | | 48
1
1 |
| Heart
Leukemia Granulocytic
Mesothelioma Malignant
Schwannoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | X | + | | 48
1
1
1 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex
Adenoma
Leukemia Granulocytic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | X | | | | 47
2
1 |
| Adrenal Medulla
Pheochromocytoma Benign
Pheochromocytoma Malignant
Bilateral, Pheochromocytoma Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | | | | | 46
2
1
1 |
| Islets, Pancreatic
Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | X | + | 47
4 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
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 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|----|
| | 0596 | 0725 | 0726 | 0683 | 0530 | 0746 | 0459 | 0566 | 0660 | 0660 | 0577 | 0775 | 0668 | 0558 | 0556 | 0677 | 0761 | 0569 | 0670 | 0426 | | 0666 | |
| ANIMAL ID | 05712 | 05711 | 05712 | 05711 | 05712 | 05711 | 05712 | 05711 | 05712 | 05711 | 05712 | 05711 | 05712 | 05711 | 05712 | 05711 | 05712 | 05711 | 05712 | 05711 | 05712 | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Pars Distalis, Adenoma | | | | X | X | | | | | X | X | X | X | | X | X | | | | | | | 22 |
| Pars Intermedia, Adenoma | | | | | | | | X | | | | | | | | | | | | | | | 1 |
| Thyroid Gland | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | 45 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| C-cell, Adenoma | | | | | | | | | | | | | | | | | | | X | | | | 1 |
| Follicular Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | 1 |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | | 1 |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bulbourethral Gland | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Coagulating Gland | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 45 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Preputial Gland | | | | | | + | | | | + | + | | | + | | | | + | + | | + | + | 16 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
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P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
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 2 Year Animals

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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|
| | 0596 | 0725 | 0726 | 0683 | 0530 | 0746 | 0459 | 0566 | 0660 | 0660 | 0577 | 0775 | 0622 | 0528 | 0559 | 0699 | 0728 | 0661 | 0579 | 0646 | | 0699 |
| ANIMAL ID | 0571 | 0572 | 0573 | 0574 | 0575 | 0776 | 0777 | 0778 | 0779 | 0770 | 0771 | 0772 | 0773 | 0774 | 0775 | 0776 | 0777 | 0998 | 0999 | 0990 | 0991 | 0992 |

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | X | 3 |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Bilateral, Carcinoma | | | | | | | | | X | | | | | | | | | | X | | | | 2 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Adenoma | | | | X | | | | | | | | | | | | | | | | | | | 2 |
| Adenoma, Multiple | | | | | | | | | | X | | | | | | | | | X | | | | 2 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Seminal Vesicle | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | 43 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Seminoma Benign | | | | | | | | | | | | | | | | | | | | | | | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Lymph Node | | | | | | | | | + | + | + | | + | + | | | | | | + | | + | 17 |
| Brachial, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Cervical, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Inguinal, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Lumbar, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Mediastinal, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Renal, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | X | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------------------|--------|
| | 0596 | 0725 | 0726 | 0683 | 0530 | 0726 | 0450 | 0560 | 0660 | 0660 | 0587 | 0725 | 0725 | 0628 | 0585 | 0566 | 0678 | 0661 | 0575 | 0609 | | 0646 | 0666 | |
| ANIMAL ID | 05712 | 05511 | 05522 | 05531 | 05571 | 05776 | 05776 | 05776 | 05776 | 05776 | 05776 | 05776 | 05776 | 05776 | 05776 | 05776 | 05776 | 05776 | 05776 | 05776 | 05776 | 05776 | | |
| Lymph Node, Mandibular
Leukemia Granulocytic | | | + | | + | | | | + | | | | | | | | | | | + | | + | 8
1 | |
| Lymph Node, Mesenteric
Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | + | + | 2
1 |
| Spleen
Leukemia Granulocytic
Liposarcoma
Sarcoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47
1
1
1 | |
| Thymus
Leukemia Granulocytic
Mesothelioma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
1
1 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland
Fibroadenoma
Leukemia Granulocytic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
1
1 | |
| Skin
Basal Cell Adenoma
Sebaceous Gland, Adenoma
Subcutaneous Tissue, Fibroma | + | | | | | | | | + | + | + | + | + | | | + | | | | + | | + | 18
1
1
5 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | 5 | 7 | 7 | 6 | 5 | 7 | 4 | 5 | 6 | 6 | 5 | 7 | 7 | 6 | 5 | 5 | 6 | 7 | 6 | 5 | 6 | 4 | 6 |
| | | 9 | 2 | 2 | 8 | 3 | 2 | 5 | 9 | 6 | 8 | 1 | 2 | 2 | 2 | 8 | 9 | 9 | 2 | 6 | 7 | 0 | 2 | 9 |
| | | 6 | 5 | 6 | 3 | 0 | 6 | 0 | 0 | 6 | 0 | 7 | 5 | 5 | 8 | 5 | 6 | 7 | 8 | 1 | 5 | 9 | 6 | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | | 7 | 7 | 7 | 7 | 7 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 9 | 9 | 7 | 8 | 8 | 8 | 9 | 9 | |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

Skeletal Muscle
 Mesothelioma Malignant

1
 1

NERVOUS SYSTEM

Brain, Brain Stem
 Leukemia Granulocytic

+
 X

48
 1

Brain, Cerebellum
 Leukemia Granulocytic

+
 X

48
 1

Brain, Cerebrum
 Granular Cell Tumor Benign
 Leukemia Granulocytic

+
 X X

48
 1
 1

RESPIRATORY SYSTEM

Lung
 Leukemia Granulocytic
 Mesothelioma Malignant

+
 X

33
 1
 1

Nose
 Leukemia Granulocytic

+
 X

32
 1

Trachea

A +
 A +

26

SPECIAL SENSES SYSTEM

Eye

1

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|--|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | | 0
7
2
7 | 0
4
0
5 | 0
7
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8 | 0
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8 | 0
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8 | 0
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4 | 0
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9
3 | 0
7
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6 | 0
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5 | 0
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9 | 0
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3 | 0
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6 |
| ANIMAL ID | | 0
1
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1
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|--|---|---|--|---|---|---|---|---|--|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Stomach, Forestomach | + | + | | + | + | + | + | + | | + | | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + |
| Stomach, Glandular
Leukemia Mononuclear | | A | | + | + | + | + | + | | + | | + | A | + | A | + | + | | + | + | | + | + | A | + | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|--|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Blood Vessel
Leukemia Granulocytic | + | + | + | + | + | + | + | + | + | + | + | | X | | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Heart
Leukemia Granulocytic
Leukemia Mononuclear
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | | X | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex
Adenoma
Leukemia Granulocytic
Leukemia Mononuclear
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | |
| Adrenal Medulla
Leukemia Granulocytic
Pheochromocytoma Benign
Bilateral, Pheochromocytoma Benign | + | + | + | + | + | + | + | + | + | + | + | | X | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic
Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|
| | 0727 | 0405 | 0708 | 0608 | 0408 | 0702 | 0604 | 0606 | 0609 | 0703 | 0500 | 0702 | 0607 | 0609 | 0503 | 0400 | 0304 | 0701 | 0702 | 0608 | 0600 | 0702 | 0508 | 0700 | | | 0607 | 0605 | 0608 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | 7 | 1 | 1 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Carcinoma | X | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Pars Distalis, Adenoma | X | | | | X | | | | X | | | | X | | | | X | | | | X | | | | | | | | |
| Pars Distalis, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coagulating Gland | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | A | + | + | + | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Preputial Gland | | | | | + | | | | + | | | | + | | | | | | | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenocarcinoma | | | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|--------------------|
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8
3
2 | 0
5
6
6
1 | | |

Leukemia Mononuclear

Prostate, Ventral Lobe
 Adenoma
 Adenoma, Multiple

Seminal Vesicle

Testes
 Interstitial Cell, Adenoma

HEMATOPOIETIC SYSTEM

Bone Marrow
 Leukemia Granulocytic
 Leukemia Mononuclear

Lymph Node
 Axillary, Leukemia Granulocytic
 Lumbar, Carcinoma, Metastatic, Preputial Gland
 Lumbar, Leukemia Granulocytic
 Lumbar, Lymphoma Malignant
 Mediastinal, Leukemia Granulocytic
 Mediastinal, Lymphoma Malignant
 Pancreatic, Leukemia Granulocytic
 Pancreatic, Lymphoma Malignant
 Renal, Leukemia Granulocytic

Lymph Node, Mandibular

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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 Test Type: CHRONIC
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|-------|-------|
| | 0727 | 0405 | 0708 | 0608 | 0408 | 0700 | 0604 | 0603 | 0706 | 0500 | 0702 | 0605 | 0609 | 0503 | 0607 | 0404 | 0309 | 0701 | 0702 | 0608 | 0600 | 0702 | 0508 | 0700 | | 0607 | 0608 | 0508 | 0607 |
| ANIMAL ID | 01531 | 01532 | 01534 | 01535 | 01536 | 01537 | 01538 | 01539 | 01540 | 01541 | 01543 | 01544 | 01546 | 01547 | 01548 | 01549 | 01550 | 01551 | 01552 | 01553 | 01554 | 01555 | 01556 | 01557 | 01558 | 01559 | 01560 | 01561 | 01562 |

Leukemia Granulocytic
 Leukemia Mononuclear
 Squamous Cell Carcinoma, Metastatic, Skin

X

X

Lymph Node, Mesenteric
 Leukemia Granulocytic

+
X

Spleen
 Leukemia Granulocytic
 Leukemia Mononuclear
 Lymphoma Malignant
 Sarcoma

+ A +
 X

X

Thymus
 Leukemia Granulocytic
 Leukemia Mononuclear
 Lymphoma Malignant

+ A +
 X

X

INTEGUMENTARY SYSTEM

Mammary Gland
 Fibroadenoma
 Leukemia Granulocytic

+
 X

Skin
 Basal Cell Adenoma
 Keratoacanthoma
 Squamous Cell Carcinoma
 Squamous Cell Papilloma
 Subcutaneous Tissue, Fibroma

+ +
 +
 X
 X
 X

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | 07 | 04 | 07 | 06 | 04 | 07 | 06 | 06 | 07 | 05 | 07 | 06 | 06 | 05 | 04 | 03 | 07 | 07 | 06 | 06 | 07 | 05 | 07 | 06 | 06 | males
(cont...) |
| | | 27 | 05 | 28 | 68 | 78 | 28 | 24 | 93 | 30 | 26 | 78 | 49 | 30 | 04 | 99 | 14 | 77 | 79 | 81 | 80 | 29 | 68 | 00 | 78 | 66 | |
| | ANIMAL ID | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 03 | 05 | 05 | 05 | 05 | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liposarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | * TOTALS |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | ANIMAL ID | 6 | 5 | 5 | 5 | 5 | 6 | 6 | 5 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 4 | 4 | |
| | | 3 | 8 | 5 | 1 | 3 | 7 | 0 | 8 | 2 | 4 | 0 | 2 | 2 | 3 | 2 | 2 | 8 | 2 | 2 | 8 | 2 | 9 | 9 | |
| | | 9 | 3 | 3 | 7 | 5 | 3 | 9 | 8 | 5 | 0 | 0 | 8 | 8 | 9 | 5 | 8 | 3 | 8 | 9 | 8 | 8 | 7 | 6 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 7 | 8 | 8 | 9 | 9 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 3 | 3 | 4 | 4 | | |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 32 |
| Intestine Large, Cecum | | | | | | | | | | | | | | | | | | | | | + | | | 1 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | A | A | | | | | | | | + | | 24 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | A | A | | | | | | | | + | | 24 |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | X | | 2 |
| Hepatocellular Carcinoma | | | | | | X | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | X | | | | | | | | | | | X | | | | | 2 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | + | 3 |
| Leukemia Mononuclear | | | | | | | | | X | | | | | | | | | | | | | | | 1 |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | 47 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------------------------|
| | 0639 | 0583 | 0553 | 0517 | 0535 | 0663 | 0669 | 0558 | 0778 | 0545 | 0750 | 0770 | 0778 | 0669 | 0775 | 0778 | 0663 | 0778 | 0779 | 0778 | | 0778 | 0776 | 0496 |
| ANIMAL ID | 0582 | 0588 | 0588 | 0588 | 0589 | 0771 | 0777 | 0777 | 0777 | 0777 | 0777 | 0778 | 0778 | 0778 | 0886 | 0886 | 0886 | 0886 | 0886 | 0886 | 0886 | 0886 | 0886 | 0886 |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | | + | + | | | + | | | + | | | | | | + | 34 |
| Stomach, Glandular
Leukemia Mononuclear | + | + | + | + | + | + | + | + | | + | + | | | + | | | A | | | | | | + | 27
1 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel
Leukemia Granulocytic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
1 |
| Heart
Leukemia Granulocytic
Leukemia Mononuclear
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
1
1
1 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex
Adenoma
Leukemia Granulocytic
Leukemia Mononuclear
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
1
1
1
1 |
| Adrenal Medulla
Leukemia Granulocytic
Pheochromocytoma Benign
Bilateral, Pheochromocytoma Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
1
5
1 |
| Islets, Pancreatic
Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| | ANIMAL ID | 639 | 583 | 553 | 517 | 535 | 673 | 669 | 588 | 725 | 570 | 778 | 777 | 777 | 669 | 775 | 778 | 663 | 778 | 779 | 778 | 776 |

| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|----|
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Parathyroid Gland | + | + | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 46 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 48 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pars Distalis, Adenoma | X | | | | X | | | X | | X | | X | X | X | X | | | X | X | | | | 19 |
| Pars Distalis, Carcinoma | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | 44 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | | 44 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 48 |
| Preputial Gland | | + | + | + | | | | | + | + | | + | | | + | | + | | | | | | 17 |
| Adenoma | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Carcinoma | | | X | | | | | | | | | | | | | | | | | | | | 4 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 48 |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------------|
| | 6 | 5 | 5 | 5 | 5 | 6 | 6 | 5 | 7 | 5 | 7 | 7 | 7 | 6 | 7 | 7 | 6 | 7 | 7 | 7 | 7 | 7 | 4 | 4 | | |
| | 3 | 8 | 5 | 1 | 3 | 7 | 0 | 8 | 2 | 4 | 0 | 2 | 2 | 3 | 2 | 2 | 8 | 2 | 2 | 2 | 2 | 2 | 9 | 9 | | |
| | 9 | 3 | 3 | 7 | 5 | 3 | 9 | 8 | 5 | 0 | 0 | 8 | 8 | 9 | 5 | 8 | 3 | 8 | 9 | 8 | 8 | 7 | 6 | 6 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | | |
| | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 7 | 8 | 8 | 9 | 9 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | | * TOTALS |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Adenoma | | | | | | | | | | | | | | | X | | | | | | | | | 3 |
| Adenoma, Multiple | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | A | + | + | + | + | + | + | 41 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Interstitial Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | X | | | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | X | | | | | | | | | | | | X | | | | | 2 |
| Lymph Node | | | + | + | + | | | + | + | | + | | | | + | | | | | | | | + | 15 |
| Axillary, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Carcinoma, Metastatic, Preputial Gland | | | | X | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreatic, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Renal, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | + | | | + | + | | | + | + | | | | | | | + | | + | | | | + | | 14 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0639 | 0583 | 0553 | 0517 | 0553 | 0663 | 0665 | 0578 | 0575 | 0577 | 0577 | 0577 | 0666 | 0677 | 0677 | 0668 | 0672 | 0672 | 0678 | 0678 | |
| ANIMAL ID | 05872 | 05881 | 05882 | 05889 | 05891 | 05897 | 05897 | 05897 | 05897 | 05897 | 05897 | 05897 | 05897 | 05897 | 05897 | 05897 | 05897 | 05897 | 05897 | 05897 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 8 | 5 | 1 | 3 | 7 | 0 | 8 | 2 | 4 | 0 | 2 | 2 | 3 | 2 | 2 | 8 | 2 | 8 | 2 | |
| | 9 | 3 | 3 | 7 | 5 | 3 | 9 | 8 | 5 | 0 | 0 | 8 | 8 | 9 | 5 | 8 | 3 | 8 | 9 | 8 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 7 | 8 | 8 | 9 | 9 | 7 | 7 | 8 | 8 | 9 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | |

Subcutaneous Tissue, Lipoma X 2
 Subcutaneous Tissue, Schwannoma Malignant X 1

MUSCULOSKELETAL SYSTEM

Bone + 1
 Bone, Femur + 48
 Skeletal Muscle 1

NERVOUS SYSTEM

Brain, Brain Stem + 47
 Carcinoma, Deep Invasion 1
 Granular Cell Tumor Malignant 1
 Leukemia Granulocytic 1
 Brain, Cerebellum + 48
 Leukemia Granulocytic 1
 Leukemia Mononuclear X 1
 Brain, Cerebrum + 48
 Granular Cell Tumor Malignant 1
 Leukemia Granulocytic 1
 Leukemia Mononuclear X 1
 Nerve Trigeminal 2
 Peripheral Nerve, Sciatic 2

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0639 | 0583 | 0553 | 0517 | 0553 | 0667 | 0668 | 0578 | 0575 | 0577 | 0577 | 0577 | 0663 | 0577 | 0578 | 0668 | 0772 | 0772 | 0778 | 0778 | | 0778 | 0496 |
| ANIMAL ID | 05872 | 05881 | 05882 | 05889 | 05891 | 05892 | 05897 | 05898 | 05899 | 05901 | 05902 | 05907 | 05908 | 05908 | 05911 | 05912 | 05912 | 05912 | 05913 | 05913 | 05914 | 05914 | 05914 |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | 2 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | | + | + | + | + | + | | + | + | + | | + | + | 39 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | X | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nose | + | + | + | + | + | + | + | + | | + | + | | + | | + | | | | | + | | | 31 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | X | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Trachea | + | + | + | + | + | + | + | + | | + | + | | + | | A | | | | | + | | | 27 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Zymbal's Gland | + | | | | | | | | | | | | | | | | | | | | | | 1 |
| Adenoma | X | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|
| | 0727 | 0729 | 0574 | 0551 | 0559 | 0558 | 0557 | 0470 | 0777 | 0672 | 0449 | 0448 | 0666 | 0665 | 0533 | 0622 | 0774 | 0553 | 0374 | 0668 | 0779 | 0442 | 0769 | 0445 | 0742 | | |
| ANIMAL ID | 01691 | 01167 | 01170 | 01177 | 01177 | 01177 | 01177 | 01177 | 01177 | 01177 | 03378 | 03388 | 03388 | 03388 | 03388 | 03388 | 03388 | 03388 | 03388 | 03388 | 03388 | 03388 | 06600 | 06600 | 06600 | 06600 | 06600 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | | | | + | + | + | + | + | + | | | | + | + | + | + | + | + | | | | | + | + | | + | + |
| Intestine Large, Colon
Lymphoma Malignant | | | + | A | + | + | + | + | | | | | + | A | + | A | + | + | + | | | | + | + | | + | + |
| Intestine Small, Ileum | | | + | A | + | + | + | + | | | | | + | A | + | A | + | + | + | | | | + | + | | + | + |
| Intestine Small, Jejunum
Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver
Hepatocellular Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hepatocellular Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery
Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas
Lymphoma Malignant | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach
Lymphoma Malignant | | | | + | + | + | + | + | | | | | | + | + | + | + | + | + | | | | + | + | | + | + |
| Stomach, Glandular
Lymphoma Malignant | | | | + | A | + | + | + | + | | | | | + | + | + | + | + | + | | | | + | + | | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | 0
7
2
7 | 0
7
2
9 | 0
5
7
4 | 0
5
1
1 | 0
5
6
9 | 0
5
8
8 | 0
5
0
7 | 0
4
0
0 | 0
7
2
7 | 0
7
2
8 | 0
6
2
5 | 0
4
1
8 | 0
4
3
2 | 0
6
9
2 | 0
5
2
8 | 0
6
2
1 | 0
7
4
7 | 0
3
4
4 | 0
7
2
8 | 0
6
3
9 | 0
7
2
9 | 0
4
0
4 | 0
7
2
5 | males
(cont...) |
| | ANIMAL ID | 0
1
6
9
1 | 0
1
6
9
2 | 0
1
7
0
1 | 0
1
7
0
1 | 0
1
7
1
2 | 0
1
7
2
1 | 0
1
7
3
2 | 0
1
7
3
1 | 0
1
7
3
2 | 0
1
7
3
1 | 0
3
3
3
1 | 0
3
3
3
2 | 0
3
3
3
1 | 0
3
3
3
2 | 0
3
3
3
1 | 0
3
3
3
2 | 0
3
3
3
1 | 0
3
3
3
2 | 0
3
3
3
1 | 0
6
8
8
2 | 0
6
8
8
1 | 0
6
8
8
2 | 0
6
9
2
1 | |

Schwannoma Malignant

X

Tongue

+

CARDIOVASCULAR SYSTEM

Blood Vessel

+ +

Heart

+ +

Lymphoma Malignant

ENDOCRINE SYSTEM

Adrenal Cortex

+ + + A + + + + + + + + + + + + + + + + + +

Lymphoma Malignant

Adrenal Medulla

+ + + A + + + + + + + + + + + + + X + + + + +

Pheochromocytoma Benign

Islets, Pancreatic

+ + + A + + M + + + + + + + + + + + + + + + +

Adenoma

Parathyroid Gland

+ +

Pituitary Gland

+ M +

Lymphoma Malignant

Pars Distalis, Adenoma

X X X X X X X X X X X X

Thyroid Gland

+ + + A + + + + + + + A + + + + + + + + + +

Lymphoma Malignant

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | 7 | 7 | 5 | 5 | 5 | 5 | 5 | 4 | 7 | 7 | 6 | 4 | 4 | 6 | 6 | 5 | 6 | 7 | 5 | 3 | 7 | 6 | 7 | 4 | 7 |
| F1 250.0StDose M | 2 | 2 | 7 | 1 | 6 | 8 | 0 | 0 | 2 | 2 | 2 | 9 | 1 | 3 | 9 | 3 | 2 | 2 | 4 | 4 | 2 | 3 | 2 | 0 | 2 |
| | 7 | 9 | 4 | 1 | 9 | 8 | 7 | 0 | 7 | 8 | 5 | 8 | 2 | 3 | 2 | 8 | 1 | 7 | 3 | 4 | 8 | 9 | 9 | 4 | 5 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 | 6 | 6 | 6 |
| | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 |

males (cont...)

GENERAL BODY SYSTEM

Tissue NOS
Sarcoma

+
X

GENITAL SYSTEM

Coagulating Gland

+ +

Epididymis
Lymphoma Malignant

+
X

Fat Pad, Epididymal

Preputial Gland
Carcinoma
Squamous Cell Papilloma

+
X X

Prostate, Dorsal/lateral Lobe
Lymphoma Malignant

+
X

Prostate, Ventral Lobe
Adenoma
Adenoma, Multiple
Lymphoma Malignant

+
X X

Seminal Vesicle

+ + + + + + + + + + + + A + + + + + + + + + + + +

Testes

+ +

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| | 0727 | 0729 | 0754 | 0751 | 0755 | 0755 | 0755 | 0754 | 0770 | 0777 | 0776 | 0744 | 0744 | 0766 | 0766 | 0755 | 0766 | 0775 | 0733 | 0744 | 0766 | 0777 | 0744 | 0777 | |
| ANIMAL ID | 01691 | 01111 | 01111 | 01111 | 01111 | 01111 | 01111 | 01111 | 01111 | 01111 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01666 | 01666 | 01666 | 01666 | |
| Mammary Gland Fibroadenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Fibroma | | | | | | X | | | | | | | | | | | | | | | | | | | |
| Skin Basal Cell Carcinoma | | | + | | | | + | | | | | | | + | + | | | | | | | + | | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | X | | |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcutaneous Tissue, Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcutaneous Tissue, Schwannoma Malignant | | | | | | | | | | | | | | | X | | | | | | | X | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle | | | | | | | | | | + | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem Granular Cell Tumor Malignant | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebrum Granular Cell Tumor Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Granular Cell Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | | X |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | X |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0727 | 0729 | 0574 | 0551 | 0559 | 0558 | 0507 | 0470 | 0777 | 0778 | 0622 | 0449 | 0448 | 0663 | 0662 | 0553 | 0661 | 0772 | 0554 | 0334 | 0768 | 0669 | 0779 | 0447 | | |
| | 01691 | 0112 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0666 | 0666 | 0666 | 0666 | 0666 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Lung | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Neural Crest Tumor, Malignant, Metastatic, Ear | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Ear | | | | | | | | | | | | | | | | | | | | | | | | | |
| Neural Crest Tumor, Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|
| | 0724 | 0541 | 0548 | 0444 | 0668 | 0449 | 0665 | 0772 | 0075 | 0078 | 0079 | 0075 | 0072 | 0079 | 0075 | 0079 | 0076 | 0074 | 0076 | 0073 | 0072 | 0077 | 0076 | 0078 | 0072 | 0077 | | 0074 | 0075 | 0079 | 0075 | 0071 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | |
| | 0 | 0 | 0 | 0 | 0 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 3 | 4 | 4 | 4 | 5 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Esophagus | + | + | + | + | + | + | | + | | + | + | + | + | + | + | + | | + | + | + | | + | + | + | | + | + | + | | + | + | + | 37 |
| Intestine Large, Colon | + | + | + | + | + | + | | + | | A | + | + | + | + | + | + | | + | + | + | | + | + | + | | + | + | + | | + | + | + | 33 |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Small, Ileum | + | + | + | + | + | + | | + | | A | + | A | + | + | + | + | | + | + | + | | + | A | + | | + | + | + | | + | + | + | 31 |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hepatocellular Adenoma | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Hepatocellular Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymphoma Malignant | | X | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | 3 |
| Mesentery | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Lymphoma Malignant | | X | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | 3 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Stomach, Forestomach | + | + | + | + | + | + | | + | | + | + | + | + | + | + | + | | + | + | + | | + | + | + | | + | + | + | | + | + | + | 37 |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | 1 |
| Stomach, Glandular | + | + | + | + | + | + | | + | | A | + | + | + | + | + | + | | + | + | + | | + | + | + | | + | + | + | | + | + | + | 35 |
| Lymphoma Malignant | | X | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------------|-------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR) | 7 | 5 | 5 | 4 | 6 | 4 | 6 | 7 | 5 | 7 | 6 | 4 | 6 | 6 | 6 | 4 | 6 | 7 | 5 | 6 | 5 | 7 | 4 | 6 | 5 | 7 | 4 | 6 | 5 |
| | 2 | 4 | 1 | 4 | 8 | 9 | 5 | 2 | 5 | 2 | 6 | 9 | 1 | 4 | 8 | 6 | 3 | 2 | 6 | 6 | 8 | 2 | 7 | 0 | 9 | 1 | 2 | 7 | 9 |
| | 4 | 1 | 8 | 4 | 9 | 1 | 8 | 8 | 9 | 5 | 9 | 9 | 0 | 4 | 7 | 9 | 1 | 7 | 7 | 4 | 9 | 7 | 5 | 5 | 1 | 2 | 7 | 9 | 1 |
| | F1 250.0StDose M | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | | 0 | 0 | 0 | 0 | 0 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | | 3 | 4 | 4 | 5 | 5 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | X | | | | | | | | | | X | | | | | | | | | | | | | | | | | | 3 |
| Lymph Node | + | + | | | | | + | + | + | | | | | | + | + | | | + | + | | | | | | | | | 15 | |
| Axillary, Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Brachial, Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Cervical, Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Inguinal, Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lumbar, Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Mediastinal, Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Pancreatic, Lymphoma Malignant | | X | | | | | | | | | X | | | | | | | | | | | | | | | | | | 3 | |
| Popliteal, Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Renal, Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Lymph Node, Mandibular | | + | | + | | + | + | | | | | + | | | | | | | | | | | | | | | | | 9 | |
| Lymphoma Malignant | | X | | | | | | | | | | X | | | | | | | | | | | | | | | | | 3 | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | + | | | | | | | | | | | | | | 2 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Lymphoma Malignant | | X | | | | | | | | | | X | | | | | | | | | | | | | | | | | 3 | |
| Thymus | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | | |
| Lymphoma Malignant | | X | | | | | | | | | | X | | | | | | | | | | | | | | | | | 3 | |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
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Date Report Requested: 08/16/2017
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0724 | 0541 | 0558 | 0444 | 0668 | 0449 | 0665 | 0772 | 0558 | 0778 | 0662 | 0449 | 0661 | 0664 | 0446 | 0663 | 0772 | 0556 | 0664 | 0558 | 0774 | 0446 | 0665 | 0559 | 0771 | |
| ANIMAL ID | 06032 | 06041 | 06044 | 06051 | 06052 | 06071 | 06077 | 06079 | 06091 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibroadenoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Skin | | | | | + | + | | + | | + | | | | | + | | | | | + | | | + | + | 15 | |
| Basal Cell Carcinoma | | | | | | | X | | | | | | | | | | | | | | | | | | 1 | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | X | | 1 | |
| Subcutaneous Tissue, Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | X | | | 1 | |
| Subcutaneous Tissue, Schwannoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | | | | | + | | | | | | | | | | | | | | | | | | | | 1 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle | | | | | | | | | | | + | | | | | | | | | | | | | | 2 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Granular Cell Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Granular Cell Tumor Benign | | | | | | | | X | | | | | | | | | | | | | | | | | 1 |
| Granular Cell Tumor Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
| | 0724 | 0541 | 0558 | 0444 | 0668 | 0449 | 0665 | 0772 | 0008 | 0005 | 0007 | 0006 | 0004 | 0006 | 0006 | 0004 | 0006 | 0007 | 0005 | 0006 | 0005 | 0007 | 0004 | 0006 | | 0005 | 0006 | 0009 | 0005 |
| ANIMAL ID | 06032 | 06041 | 06042 | 06051 | 06062 | 06071 | 06072 | 06077 | 06079 | 06092 | 06093 | 06094 | 06095 | 06096 | 06097 | 06098 | 06099 | 06077 | 06077 | 06077 | 06077 | 06077 | 06077 | 06077 | 06077 | 06077 | 06077 | 06077 | 06077 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | | 6 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | | 6 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|---|
| Lung | | | | | | | | | | | | | | | | | | | | | | | | | 40 | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Neural Crest Tumor, Malignant, Metastatic, Ear | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| Nose | | | | | | | | | | | | | | | | | | | | | | | | | 37 | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Trachea | | | | | | | | | | | | | | | | | | | | | | | | | 32 | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Ear | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Neural Crest Tumor, Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|
| | 07
24 | 05
41 | 05
18 | 04
44 | 06
89 | 04
11 | 06
58 | 07
78 | 05
28 | 07
59 | 06
25 | 04
69 | 06
19 | 06
44 | 04
68 | 06
31 | 07
27 | 05
67 | 06
64 | 05
89 | 07
27 | 04
55 | 06
65 | 05
91 | | |
| ANIMAL ID | 06
00
32 | 06
00
41 | 06
00
42 | 06
00
45 | 06
00
51 | 07
09
11 | 07
09
12 | 07
09
21 | 07
09
22 | 07
09
23 | 07
09
31 | 07
09
33 | 07
09
41 | 07
09
44 | 07
09
51 | 07
09
52 | 07
09
61 | 07
09
62 | 07
09
71 | 07
09
72 | 07
09
77 | 07
09
78 | 07
09
81 | 07
09
82 | 07
09
91 | 07
09
92 |

Zymbal's Gland Adenoma 1
 Adenoma 1

URINARY SYSTEM

Kidney + 50
 Liposarcoma 1
 Lymphoma Malignant X X 3
 Urinary Bladder 4

SYSTEMIC LESIONS

Multiple Organ + 50
 Histiocytic Sarcoma X 1
 Lymphoma Malignant X 3

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

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Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|
| | 0727 | 0678 | 0728 | 0556 | 0777 | 0661 | 0449 | 0776 | 0456 | 0779 | 0466 | 0508 | 0773 | 0770 | 0772 | 0567 | 0635 | 0459 | 0433 | 0701 | 0649 | 0725 | 0755 | 0508 | 0558 | | 0594 |
| ANIMAL ID | 01851 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Large, Cecum
Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon
Lymphoma Malignant | + | + | + | + | + | + | A | + | | | | | | | | | + | A | + | + | + | + | + | + | + | + | + | |
| Intestine Small, Ileum
Lymphoma Malignant | A | + | + | + | + | + | A | + | | | | | | | | | + | A | + | A | + | + | + | + | A | A | + | |
| Liver
Hepatocellular Adenoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oral Mucosa
Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas
Lymphoma Malignant
Acinar Cell, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Glandular | + | + | + | + | + | + | A | + | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 4 | 7 | 4 | 5 | 7 | 7 | 7 | 5 | 6 | 4 | 5 | 4 | 7 | 6 | 7 | 7 | 5 | 5 | 5 | |
| F1 2500.StDose M | 2 | 7 | 2 | 5 | 2 | 0 | 5 | 9 | 2 | 6 | 0 | 2 | 3 | 2 | 6 | 3 | 5 | 5 | 3 | 0 | 4 | 2 | 0 | 1 | 9 | 9 | |
| | 7 | 8 | 8 | 6 | 7 | 7 | 1 | 9 | 6 | 6 | 8 | 9 | 0 | 7 | 7 | 2 | 4 | 9 | 3 | 1 | 9 | 5 | 5 | 8 | 4 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | males
(cont...) |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Schwannoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Adenoma | | | | X | X | X | | | | | | X | | X | X | X | | | | | | | | | X | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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Bisphenol A

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Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 4 | 7 | 4 | 5 | 7 | 7 | 7 | 5 | 6 | 4 | 5 | 4 | 7 | 6 | 7 | 7 | 5 | 5 | |
| | 2 | 7 | 2 | 5 | 2 | 0 | 5 | 9 | 2 | 6 | 0 | 2 | 3 | 2 | 6 | 3 | 5 | 5 | 3 | 0 | 4 | 2 | 0 | 1 | 8 | |
| | 7 | 8 | 8 | 6 | 7 | 7 | 1 | 9 | 6 | 6 | 8 | 9 | 0 | 7 | 7 | 2 | 4 | 9 | 3 | 1 | 9 | 5 | 5 | 8 | 4 | |
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | |
| | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | | |
| | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| | males (cont...) | | | | | | | | | | | | | | | | | | | | | | | | | |

C-cell, Adenoma
C-cell, Carcinoma
Follicular Cell, Adenoma

X

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | + | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |
| Bilateral, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | X |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Carcinosarcoma | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|--|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------|----|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | | 07 | 06 | 07 | 05 | 07 | 07 | 06 | 04 | 07 | 04 | 05 | 07 | 07 | 07 | 05 | 06 | 04 | 05 | 04 | 07 | 06 | 07 | 07 | 05 | | 05 |
| ANIMAL ID | | 27 | 78 | 28 | 56 | 27 | 07 | 51 | 99 | 26 | 66 | 08 | 29 | 00 | 07 | 06 | 32 | 54 | 59 | 33 | 01 | 49 | 25 | 05 | 18 | | 49 |
| | | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 06 | 06 | 06 | 06 | 06 | |
| | | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 01 | 01 | 01 | 01 | 01 | | |
| | | 51 | 52 | 61 | 62 | 71 | 72 | 81 | 82 | 91 | 92 | 11 | 12 | 21 | 22 | 31 | 32 | 41 | 42 | 51 | 52 | 71 | 72 | 81 | 82 | 91 | |

Testes
Seminoma Malignant
Interstitial Cell, Adenoma

+ +

X

HEMATOPOIETIC SYSTEM

Bone Marrow
Lymphoma Malignant

+ +

X

Lymph Node
Axillary, Lymphoma Malignant
Brachial, Lymphoma Malignant
Cervical, Lymphoma Malignant
Inguinal, Lymphoma Malignant
Lumbar, Lymphoma Malignant
Mediastinal, Lymphoma Malignant
Pancreatic, Lymphoma Malignant
Popliteal, Lymphoma Malignant
Renal, Lymphoma Malignant

+ +

X
X
X
X
X
X
X
X

Lymph Node, Mandibular
Lymphoma Malignant

+ +

X

Lymph Node, Mesenteric
Lymphoma Malignant

+ +

X

Spleen
Histiocytic Sarcoma
Lymphoma Malignant

+ +

X

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|--------------------|-----|-----|-----|-----|
| | 077 | 068 | 078 | 055 | 072 | 070 | 065 | 049 | 072 | 046 | 052 | 073 | 073 | 072 | 056 | 063 | 045 | 055 | 043 | 070 | | | 064 | 072 | 055 | 075 |
| | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 | 018 |

Thymus + M +
 Lymphoma Malignant X

INTEGUMENTARY SYSTEM

Mammary Gland + + + + + + + + + + + + + + + M + + + + + + + +
 Adenoma X
 Fibroadenoma X
 Lymphoma Malignant X
 Skin +
 Basal Cell Adenoma X
 Squamous Cell Carcinoma X
 Squamous Cell Papilloma X
 Subcutaneous Tissue, Fibroma X
 Subcutaneous Tissue, Lipoma X
 Subcutaneous Tissue, Sarcoma X

MUSCULOSKELETAL SYSTEM

Bone +
 Cranium, Lymphoma Malignant X
 Bone, Femur +
 Skeletal Muscle +

NERVOUS SYSTEM

Brain, Brain Stem +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|---|-----------|--------------------|
| | 07
27 | 06
78 | 07
28 | 05
56 | 07
27 | 07
77 | 06
61 | 04
49 | 07
76 | 04
46 | 05
58 | 07
79 | 07
70 | 07
73 | 05
52 | 06
63 | 04
45 | 05
53 | 07
70 | 06
64 | 07
75 | 07
75 | 05
58 | 05
54 | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Brain, Cerebellum
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | |
| Brain, Cerebrum
Lymphoma Malignant
Meningioma Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | + | | + | | | | + | | | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | + | | + | | | | + | | | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | + | | + | | | | + | | | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | + | | + | | | | + | | | | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | + | | + | | | | + | | | | |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | + | | + | | | | + | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|--|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung
Lymphoma Malignant | + | + | | + | + | + | + | + | | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | X |
| Nose
Lymphoma Malignant
Squamous Cell Carcinoma | | + | | + | + | + | | | + | + | | | | + | + | + | + | + | + | + | | + | + | + | | X |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | | |
|--|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|--------------------|----|----|----|----|----|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | | 07 | 06 | 07 | 05 | 07 | 07 | 06 | 04 | 07 | 04 | 05 | 07 | 07 | 07 | 05 | 06 | 04 | 05 | 04 | 07 | | 06 | 07 | 07 | 05 | 05 |
| ANIMAL ID | | 27 | 78 | 28 | 58 | 27 | 07 | 51 | 99 | 26 | 66 | 08 | 29 | 00 | 07 | 06 | 32 | 54 | 59 | 33 | 01 | | 49 | 55 | 08 | 19 | 48 |
| | | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 06 | 06 | 06 | 06 | 06 | |
| | | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 88 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 00 | 01 | 01 | 01 | 01 | 01 | | |
| | | 51 | 52 | 61 | 62 | 71 | 72 | 81 | 82 | 91 | 92 | 11 | 12 | 21 | 22 | 31 | 32 | 41 | 42 | 51 | 52 | 61 | 62 | 71 | 72 | | |

Trachea + + + + + A + + + + + + + + + + + + +

SPECIAL SENSES SYSTEM

Eye

URINARY SYSTEM

Kidney +

Lipoma X

Lymphoma Malignant X

Urinary Bladder + +

SYSTEMIC LESIONS

Multiple Organ +

Histiocytic Sarcoma

Lymphoma Malignant X

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

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Bisphenol A
CAS Number: 80-05-7
2 Year Animals

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 078 | 075 | 065 | 072 | 078 | 079 | 077 | 066 | 077 | 077 | 044 | 073 | 066 | 011 | 055 | 074 | 066 | 044 | 055 | 066 | 066 | 022 | 077 | 077 | | 077 | 066 |
| ANIMAL ID | 06192 | 06201 | 06202 | 06203 | 06204 | 06205 | 06206 | 06207 | 06208 | 06209 | 06210 | 06211 | 06212 | 06213 | 06214 | 06215 | 06216 | 06217 | 06218 | 06219 | 06220 | 06221 | 06222 | 06223 | 06224 | 06225 | 06226 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Esophagus | + | + | + | | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | | | | | | + | 35 | |
| Intestine Large, Cecum | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Large, Colon | + | A | + | | | + | + | + | | + | + | + | A | + | + | + | + | A | + | + | | | | | | + | 29 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Intestine Small, Ileum | + | A | + | | | + | + | + | | + | + | + | A | + | + | + | + | A | + | + | | | | | | + | 26 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Acinar Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Stomach, Forestomach | + | + | + | | | + | + | + | | + | + | + | A | + | + | + | + | + | + | + | | | | | | + | 34 | |
| Stomach, Glandular | + | + | + | | | + | + | + | | + | + | + | A | + | + | + | + | + | + | | | | | | | + | 33 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 078 | 075 | 065 | 072 | 078 | 079 | 076 | 077 | 074 | 073 | 064 | 076 | 061 | 055 | 077 | 066 | 044 | 055 | 066 | 066 | 072 | 077 | 077 | 066 | |
| ANIMAL ID | 06192 | 06220 | 06201 | 06211 | 06212 | 06885 | 06882 | 06886 | 06887 | 06888 | 06888 | 06888 | 06888 | 06888 | 06888 | 06889 | 06889 | 06889 | 06889 | 06889 | 06889 | 06889 | 06889 | 06889 | 06889 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|---|
| C-cell, Adenoma | X | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| C-cell, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Follicular Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | | 2 |
| Preputial Gland | + | + | + | | + | + | | | | | | | | | | | | | | + | + | | + | + | | 15 |
| Carcinoma | | | X | | | | | | | | | | | | | | | | | X | | | X | | | 4 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Bilateral, Carcinoma | X | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | X | | | | | | | | | 2 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Adenoma, Multiple | X | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + | + | + | + | 48 |
| Carcinosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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 BLANK .. Not examined microscopically

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 Bisphenol A
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|
| | 0708 | 0708 | 0625 | 0625 | 0728 | 0728 | 0728 | 0676 | 0777 | 0777 | 0443 | 0776 | 0115 | 0578 | 0664 | 0552 | 0708 | 0663 | 0693 | 0728 | 0728 | 0728 | 0728 | 0678 | | 0678 |
| ANIMAL ID | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 | 061922 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Seminoma Malignant | | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Interstitial Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymph Node | + | + | + | | + | + | | + | + | | + | + | | | | | + | + | | + | + | + | | + | + | 27 |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Brachial, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Inguinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Popliteal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | | | | | | + | | | | | | | | | | | | | | | | | | + | + | 13 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | + | 2 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 49 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | X | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 078 | 075 | 065 | 072 | 078 | 079 | 077 | 066 | 077 | 077 | 044 | 077 | 066 | 011 | 055 | 077 | 066 | 044 | 055 | 066 | 066 | 072 | 077 | 077 | |
| ANIMAL ID | 06192 | 06202 | 06012 | 06211 | 06112 | 06851 | 06852 | 06881 | 06882 | 06883 | 06884 | 06885 | 06886 | 06887 | 06888 | 06891 | 06892 | 06893 | 06894 | 06895 | 06896 | 06897 | 06898 | 06899 | 06901 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fibroadenoma | | | | | | | | | | X | | | | | | X | | | | | | | | | | 3 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Skin | + | + | | | | + | | | | | | + | + | | + | + | + | | | | | + | | | | 17 |
| Basal Cell Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Squamous Cell Papilloma | | | | | | | | X | | | | | | | | | | | | | | | | | | 4 |
| Subcutaneous Tissue, Fibroma | X | | | | | | | | | | | | | | | | | | | | | | X | | | 3 |
| Subcutaneous Tissue, Lipoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Cranium, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | + | 2 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--------------|--|
| | 0708 | 0705 | 0625 | 0728 | 0729 | 0707 | 0676 | 0777 | 0774 | 0478 | 0605 | 0145 | 0570 | 0660 | 0422 | 0583 | 0669 | 0663 | 0722 | 0728 | 0727 | 0722 | 0678 | 0675 | | | |
| ANIMAL ID | 06192 | 06220 | 06201 | 06211 | 06212 | 08851 | 08852 | 08861 | 08862 | 08871 | 08872 | 08881 | 08882 | 08891 | 08892 | 09901 | 09902 | 09911 | 09912 | 09921 | 09922 | 09931 | 09932 | 09941 | 09942 | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Brain, Cerebellum
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
2 | |
| Brain, Cerebrum
Lymphoma Malignant
Meningioma Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50
2
1 | |
| Nerve Trigeminal | + | | | | | | | | + | | | | | | | | + | + | | | | | | | | 8 | |
| Peripheral Nerve, Sciatic | + | | | | | | | | + | | | | | | | | + | + | | | | | | | | 8 | |
| Peripheral Nerve, Tibial | + | | | | | | | | + | | | | | | | | + | + | | | | | | | | 8 | |
| Spinal Cord, Cervical | + | | | | | | | | + | | | | | | | | + | + | | | | | | | | 8 | |
| Spinal Cord, Lumbar | + | | | | | | | | + | | | | | | | | + | + | | | | | | | | 8 | |
| Spinal Cord, Thoracic | + | | | | | | | | + | | | | | | | | + | + | | | | | | | | 8 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung
Lymphoma Malignant | + | + | + | | | + | + | + | | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 41
2 | |
| Nose
Lymphoma Malignant
Squamous Cell Carcinoma | + | + | + | | | + | + | + | | + | + | + | A | + | + | + | + | + | + | | | | | + | | 34
2
1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----|
| | 078 | 075 | 065 | 078 | 079 | 077 | 066 | 077 | 077 | 044 | 076 | 061 | 055 | 077 | 066 | 044 | 055 | 066 | 066 | 077 | 077 | 077 | 066 | 066 | | |
| ANIMAL ID | 06192 | 06201 | 06202 | 06201 | 06202 | 06801 | 06802 | 06803 | 06804 | 06805 | 06806 | 06807 | 06808 | 06809 | 06810 | 06811 | 06812 | 06813 | 06814 | 06815 | 06816 | 06817 | 06818 | 06819 | 06820 | |
| Trachea | + | + | + | | | + | + | + | | | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | A | + |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lipoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Urinary Bladder | | + | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | X | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|
| | 0535 | 0666 | 0664 | 0577 | 0662 | 0772 | 0661 | 0770 | 0558 | 0665 | 0772 | 0440 | 0559 | 0666 | 0775 | 0770 | 0772 | 0771 | 0448 | 0559 | 0112 | 0772 | 0558 | 0112 | |
| ANIMAL ID | 0200 | 0200 | 0200 | 0200 | 0200 | 0200 | 0200 | 0200 | 0200 | 0200 | 0404 | 0404 | 0404 | 0404 | 0404 | 0404 | 0404 | 0404 | 0606 | 0606 | 0606 | 0606 | 0606 | 0606 | 0606 |
| | 11 | 22 | 11 | 22 | 33 | 44 | 22 | 11 | 44 | 55 | 77 | 88 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Granulocytic | | | | | | | | | X | | | | | | | | | | | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | |
| Atrium, Mesothelioma Malignant | | | | | | | | X | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Granulocytic | | | | | | | | | | | | X | | | | | | | | | | | |
| Lymphoma Malignant | | X | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | M | + | + | + | + | + |
| Pheochromocytoma Benign | | | | | | X | | X | | | | | | | | | | | | | | X | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | X | | | | | | | | | | | | | | | X |
| Parathyroid Gland | + | + | + | + | + | + | + | + | M | + | + | M | + | + | + | + | + | + | + | + | + | M | + |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Craniopharyngioma | | | | | | | | | | | | | | | | | | X | | | | | |
| Leukemia Granulocytic | | | | | | | | | X | | | | | | | | | | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Adenoma | | X | X | X | X | X | X | | | | | X | X | X | | | | X | | | | X | |
| Thyroid Gland | + | + | A | + | + | + | + | + | + | + | A | + | M | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|-----------|--------------------|
| | 0535 | 0666 | 0664 | 0577 | 0662 | 0772 | 0661 | 0770 | 0558 | 0665 | 0776 | 0443 | 0772 | 0772 | 0662 | 0775 | 0777 | 0777 | 0448 | 0555 | 0112 | 0772 | 0558 | 0000 | | | |
| | 0200 | 0222 | 0222 | 0222 | 0222 | 0222 | 0222 | 0222 | 0222 | 0444 | 0444 | 0444 | 0444 | 0444 | 0444 | 0444 | 0444 | 0444 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 | | | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Seminal Vesicle | + | + | A | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Testes
Interstitial Cell, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | |
| Lymphoma Malignant | X | X | | | | | | | | | | | | | | | | | | | | | |
| Osteosarcoma, Metastatic, Bone, Femur | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | + | + | | | + | + | | | + | + | | | | | | | + | | | + | + | | + |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Brachial, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Cervical, Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | |
| Inguinal, Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | |
| Lumbar, Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | |
| Mediastinal, Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | |
| Pancreatic, Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | |
| Pancreatic, Lymphoma Malignant | X | X | | | | | | | | | | | X | | | | | | | | | | |
| Renal, Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | |
| Lymph Node, Mandibular | | + | + | | | | | | | | | | + | + | | | | | | + | | | + |
| Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|--|------------------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|
| | | 0535 | 0666 | 0664 | 0577 | 0672 | 0672 | 0671 | 0670 | 0588 | 0650 | 0676 | 0679 | 0676 | 0675 | 0677 | 0677 | 0677 | 0677 | 0488 | 0559 | 0612 | 0672 | 0678 | | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | ANIMAL ID | 0201 | 0202 | 0203 | 0204 | 0205 | 0206 | 0207 | 0208 | 0209 | 0210 | 0211 | 0212 | 0213 | 0214 | 0215 | 0216 | 0217 | 0218 | 0219 | 0220 | 0221 | 0222 | 0223 | 0224 | |
| | F1 25000StDose M | 0201 | 0202 | 0203 | 0204 | 0205 | 0206 | 0207 | 0208 | 0209 | 0210 | 0211 | 0212 | 0213 | 0214 | 0215 | 0216 | 0217 | 0218 | 0219 | 0220 | 0221 | 0222 | 0223 | 0224 | |

Lymph Node, Mesenteric
Lymphoma Malignant

+
X

Spleen
Leukemia Granulocytic
Lymphoma Malignant

+ + + + + + + + + + + A + + + + + + + + + + + +
X X
X

Thymus
Leukemia Granulocytic
Lymphoma Malignant

+ + + + + + + + + + + M + + + + + + + + + + + +
X

INTEGUMENTARY SYSTEM

Mammary Gland
Fibroadenoma
Fibroma
Lymphoma Malignant

+ +

Skin
Fibroma
Squamous Cell Papilloma
Subcutaneous Tissue, Lipoma
Subcutaneous Tissue, Sarcoma

+
+
+
+
+ +

MUSCULOSKELETAL SYSTEM

Bone
Bone, Femur
Osteosarcoma

+
+
+ +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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Experiment Number: 10034 - 04
 Test Type: CHRONIC
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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | | |
|--|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | ANIMAL ID | 5 | 6 | 6 | 4 | 7 | 7 | 2 | 1 | 0 | 8 | 5 | 2 | 0 | 9 | 2 | 2 | 2 | 2 | 0 | 2 | 1 | 7 | 9 | 8 | | 5 | 2 | 2 | 8 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 1 | |
| | | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |

Skeletal Muscle

+

NERVOUS SYSTEM

Brain, Brain Stem

Lymphoma Malignant

+ +

Brain, Cerebellum

Lymphoma Malignant

+
 X

Brain, Cerebrum

Lymphoma Malignant
 Oligodendroglioma Malignant
 Sarcoma

+
 X

Nerve Trigeminal

Lymphoma Malignant

+

Peripheral Nerve, Sciatic

+

Peripheral Nerve, Tibial

+

Spinal Cord, Cervical

+

Spinal Cord, Lumbar

Lymphoma Malignant

+

Spinal Cord, Thoracic

+

RESPIRATORY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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Experiment Number: 10034 - 04
 Test Type: CHRONIC
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 Bisphenol A
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 2 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0535 | 0666 | 0664 | 0577 | 0662 | 0772 | 0661 | 0770 | 0558 | 0665 | 0776 | 0443 | 0772 | 0772 | 0666 | 0772 | 0777 | 0777 | 0448 | 0559 | 0112 | 0771 | 0998 | 0000 | | |
| | 0200 | 0222 | 0222 | 0222 | 0222 | 0222 | 0222 | 0222 | 0222 | 0444 | 0444 | 0444 | 0444 | 0444 | 0444 | 0444 | 0444 | 0444 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 | | |
| | 0001 | 0011 | 0022 | 0023 | 0033 | 0044 | 0044 | 0055 | 0057 | 0117 | 0118 | 0118 | 0118 | 0119 | 0119 | 0220 | 0222 | 0222 | 0333 | 0333 | 0333 | 0444 | 0445 | 0551 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|--|---|---|---|---|---|---|---|--|---|--|---|---|---|---|---|---|---|--|
| Lung | + | + | + | + | + | | + | + | + | + | + | + | | | + | | + | + | + | + | + | + | + | |
| Leukemia Granulocytic | | | | | | | | | | X | | | | | | | | | | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | |
| Osteosarcoma, Metastatic, Bone, Femur | | | | | | | | | | | | | | | | | | | | | | | | |
| Sarcoma | | | | | | | | | | | | | X | | | | | | | | | | | |
| Sarcoma, Metastatic, Tissue Nos | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | + | + | + | + | + | | + | + | + | + | + | + | | | + | | + | | + | + | + | + | + | |
| Adenoma | | | | | | | | | X | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | X | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |
| Sarcoma, Metastatic, Brain, Cerebrum | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | + | + | A | + | + | | + | + | + | + | + | + | A | | + | | + | | + | + | + | + | + | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Zymbal's Gland | | | | | + | | | | | | | | | | | | | | | | | | | | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Granulocytic | | | | | | | | | | | | | X | | | | | | | | | | | |
| Lymphoma Malignant | X | X | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | | | | | | | | | + | | + | | | | | | | | | | | | | + |

SYSTEMIC LESIONS

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|----|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | 0535 | 0666 | 0664 | 0577 | 0672 | 0676 | 0777 | 0568 | 0671 | 0560 | 0772 | 0493 | 0776 | 0777 | 0777 | 0777 | 0478 | 0559 | 0122 | 0778 | 0580 | males
(cont...) | | |
| | ANIMAL ID | 0201 | 0202 | 0203 | 0204 | 0205 | 0206 | 0207 | 0208 | 0209 | 0210 | 0211 | 0212 | 0213 | 0214 | 0215 | 0216 | 0217 | 0218 | 0219 | 0220 | 0221 | | 0222 | |
| | | 11 | 22 | 11 | 22 | 33 | 33 | 44 | 44 | 55 | 55 | 77 | 77 | 88 | 88 | 99 | 99 | 00 | 11 | 11 | 22 | 33 | | 33 | 44 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Granulocytic | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Lymphoma Malignant | X | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesothelioma Malignant | | | | | | | | | | X | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 7 | 4 | 4 | 5 | 7 | 6 | 7 | 3 | 2 | 5 | 6 | 5 | 6 | 5 | 4 | 6 | 5 | 7 | 4 | 2 | 4 | 4 |
| | | 2 | 7 | 9 | 4 | 1 | 8 | 2 | 5 | 5 | 4 | 4 | 3 | 0 | 9 | 4 | 1 | 3 | 2 | 6 | 9 | 8 | 8 |
| | | 8 | 5 | 3 | 5 | 5 | 5 | 8 | 9 | 4 | 0 | 0 | 8 | 1 | 4 | 6 | 5 | 1 | 7 | 6 | 5 | 1 | 1 |
| F1 25000StDose M | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|
| Esophagus | | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | | A | + | 36 | |
| Intestine Large, Colon | | + | + | + | + | + | | + | + | + | A | + | + | + | + | + | + | | A | A | + | 31 | |
| Lymphoma Malignant | | | | | | | | | | X | | | | | | | | | | | | 2 | |
| Intestine Small, Duodenum | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Intestine Small, Ileum | | + | + | + | + | + | | + | + | + | A | + | + | + | + | + | + | | A | A | + | 30 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | + | + | | | | | | 2 | |
| Liver | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Hepatocellular Carcinoma | | X | | | | | | | | | | | | | | | | | | | | 1 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | X | | X | | | X | | | | | | | | | | | | | 5 | |
| Mesentery | | | | | | | | | | | + | | | | | + | | | | | | 2 | |
| Pancreas | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 44 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | X | | | | X | | | | | | | | | | | | | 2 | |
| Acinar Cell, Adenoma | | | | | | | | | | | | | | X | | | | | | | | 1 | |
| Stomach, Forestomach | | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | | + | + | + | 37 | |
| Stomach, Glandular | | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | | + | + | + | 36 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST | | 7 | 4 | 4 | 5 | 7 | 6 | 7 | 3 | 2 | 5 | 6 | 5 | 6 | 5 | 4 | 6 | 5 | 7 | 4 | 2 | 4 |
| | | 2 | 7 | 9 | 4 | 1 | 8 | 2 | 5 | 5 | 4 | 4 | 3 | 0 | 9 | 4 | 1 | 3 | 2 | 6 | 9 | 8 |
| | | 8 | 5 | 3 | 5 | 5 | 5 | 8 | 9 | 4 | 0 | 0 | 8 | 1 | 4 | 6 | 5 | 1 | 7 | 6 | 5 | 1 |
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| ANIMAL ID | | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | X | | | | X | | | | | | | | | | | | | | 3 |
| Atrium, Mesothelioma Malignant | | | | | | | | | | | | | | | | | | | | | | 1 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 44 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | X | | | | X | | | | | | | | | | | | | | 3 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44 |
| Pheochromocytoma Benign | | | | | | | X | | | | | | | | | | | | | | | 4 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 44 | |
| Adenoma | | | | | | | | | | | X | | | | | | X | | | | | 4 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 43 |
| Pituitary Gland | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | A | + | 43 | |
| Craniopharyngioma | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | | 2 |
| Pars Distalis, Adenoma | | | | X | X | X | | | | | | | | | | | X | X | | | | 17 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 42 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | 7 | 4 | 4 | 5 | 7 | 6 | 7 | 3 | 2 | 5 | 6 | 5 | 6 | 5 | 4 | 6 | 5 | 7 | 4 | 2 | 4 |
| | 2 | 7 | 9 | 4 | 1 | 8 | 2 | 5 | 5 | 4 | 4 | 3 | 0 | 9 | 4 | 1 | 3 | 2 | 6 | 9 | 8 |
| | 8 | 5 | 3 | 5 | 5 | 5 | 8 | 9 | 4 | 0 | 0 | 8 | 1 | 4 | 6 | 5 | 1 | 7 | 6 | 5 | 1 |
| F1 25000StDose M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|--|--|--|--|--|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| Lymphoma Malignant | | | | | | X | | | | | | | | | | | | | | | | 1 |
| C-cell, Adenoma | | | | | | | X | X | | | | | | | | | | | | | | 3 |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | 1 |
| Sarcoma | | | | | | | | | | | | | | | | | | | | | | 1 |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 44 | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Lymphoma Malignant | | | | X | | | | | | | | | | | | | | | | | | 1 |
| Preputial Gland | + | | | + | | | | | | | | | + | | | | | + | | | + | 12 |
| Adenoma | | | | | | | | | | | | X | | | | | | | | | | 2 |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | 3 |
| Carcinosarcoma | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | X | | | | | 1 |
| Bilateral, Carcinoma | | | | | | | | | | | | | | | | | | | | | | 1 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | X | | X | | | X | | | | | | | | | | | | 4 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Adenoma | | | | | | | X | | | | | | | | | | X | | | | | 4 |
| Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymphoma Malignant | | | | | X | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
|---------------------------------------|--|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 7 | 4 | 4 | 5 | 7 | 6 | 7 | 3 | 2 | 5 | 6 | 5 | 6 | 5 | 4 | 6 | 5 | 7 | 4 | 2 | 4 |
| F1 25000StDose M | | 2 | 7 | 9 | 4 | 1 | 8 | 2 | 5 | 5 | 4 | 4 | 3 | 0 | 9 | 4 | 1 | 3 | 2 | 6 | 9 | 8 |
| ANIMAL ID | | 8 | 5 | 3 | 5 | 5 | 5 | 8 | 9 | 4 | 0 | 0 | 8 | 1 | 4 | 6 | 5 | 1 | 7 | 6 | 5 | 1 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | | |
| Seminal Vesicle | | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | 42 | |
| Testes | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Interstitial Cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | 1 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | X | | X | | | X | | | | | | | | | | | | 5 |
| Osteosarcoma, Metastatic, Bone, Femur | | | | | | | | | | | | | | X | | | | | | | | 1 |
| Lymph Node | | | | | + | | + | + | | + | | | | + | | | | + | | | | 16 |
| Axillary, Lymphoma Malignant | | | | | X | | | | | X | | | | | | | | | | | | 2 |
| Brachial, Lymphoma Malignant | | | | | | | X | | | | | | | | | | | | | | | 1 |
| Cervical, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inguinal, Lymphoma Malignant | | | | | X | | | | | X | | | | | | | | | | | | 2 |
| Lumbar, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Lymphoma Malignant | | | | | X | | X | | | | | | | | | | | | | | | 2 |
| Mediastinal, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Lymphoma Malignant | | | | | X | | | | | X | | | | | | | | | | | | 3 |
| Pancreatic, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreatic, Lymphoma Malignant | | | | | X | | X | | | X | | | | | | | | | | | | 5 |
| Renal, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 |
| Renal, Lymphoma Malignant | | | | | X | | X | | | X | | | | | | | | | | | | 3 |
| Lymph Node, Mandibular | | + | | | + | + | + | | | + | | | + | | + | | | + | | | | 15 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | X | | X | | | X | | | | | | | | | | | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 078 | 045 | 043 | 054 | 071 | 068 | 072 | 035 | 025 | 054 | 044 | 033 | 060 | 059 | 046 | 065 | 073 | 046 | 022 | 044 | |
| ANIMAL ID | 06352 | 06362 | 06331 | 06372 | 06811 | 06812 | 06820 | 06821 | 06822 | 06823 | 06824 | 06825 | 06826 | 06827 | 06828 | 06829 | 06830 | 06831 | 06832 | 06833 | |
| Skeletal Muscle | + | | | | | | | | | + | | | | | | | | | | | 3 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Lymphoma Malignant | | | | X | | | | | X | | | | | | | | | | | | 2 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Lymphoma Malignant | | | | | | | | | X | | | | | | | | | | | | 2 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Lymphoma Malignant | | | | X | | | | | X | | | | | | | | | | | | 3 |
| Oligodendroglioma Malignant | | | | | | | X | | | | | | | | | | | | | | 1 |
| Sarcoma | | | | | | | | | | | | | | | | | | X | | | 1 |
| Nerve Trigeminal | + | | | | | | | | | + | | | | | | | | | | | 3 |
| Lymphoma Malignant | | | | | | | | | | X | | | | | | | | | | | 1 |
| Peripheral Nerve, Sciatic | + | | | | | | | | | + | | | | | | | | | | | 3 |
| Peripheral Nerve, Tibial | + | | | | | | | | | + | | | | | | | | | | | 3 |
| Spinal Cord, Cervical | + | | | | | | | | | + | | | | | | | | | | | 3 |
| Spinal Cord, Lumbar | + | | | | | | | | | + | | | | | | | | | | | 3 |
| Lymphoma Malignant | | | | | | | | | | X | | | | | | | | | | | 1 |
| Spinal Cord, Thoracic | + | | | | | | | | | + | | | | | | | | | | | 3 |

RESPIRATORY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|---|------|------|------|-----------------|
| | 0728 | 0475 | 0493 | 0545 | 0715 | 0685 | 0738 | 0329 | 0054 | 0064 | 0053 | 0060 | 0065 | 0059 | 0044 | 0043 | 0009 | 0046 | 0053 | 0072 | | | 0046 | 0022 | 0044 | 0022 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | * TOTALS |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|--|--|--|---|--|---|--|--|---|--|--|--|---|--|--|--|--|--|--|--|---|--|--|--|--|-----------|
| Lung | | | | | | | | | | | | | | | | | | | | | | | | | | 38 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | X | | X | | | X | | | | | | | | | | | | | | | | | 4 |
| Osteosarcoma, Metastatic, Bone, Femur | | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Sarcoma, Metastatic, Tissue Nos | | | | | | | | | | | | | | | | | | | | | X | | | | | 1 |
| Nose | | | | | | | | | | | | | | | | | | | | | | | | | | 37 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | X | | X | | | X | | | | | | | | | | | | | | | | | 3 |
| Sarcoma, Metastatic, Brain, Cerebrum | | | | | | | | | | | | | | | | | | | | | X | | | | | 1 |
| Trachea | | | | | | | | | | | | | | | | | | | | | | | | | | 33 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|--|--|--|---|--|---|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------|
| Kidney | | | | | | | | | | | | | | | | | | | | | | | | | | 45 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | X | | X | | | X | | | | | | | | | | | | | | | | | 5 |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |

SYSTEMIC LESIONS

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | |
|--------------------------------------|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|------|------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | | 0652 | 0595 | 0727 | 0727 | 0661 | 0667 | 0667 | 0742 | 0747 | 0644 | 0747 | 0661 | 0733 | 0622 | 0500 | 0622 | 0721 | 0727 | 0574 | 0664 | | 0661 | 0556 | 0559 |
| F1 Veh. Ctrl F | | 0000 | 0000 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0001 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0004 | | 0004 | 0004 | 0004 |
| ANIMAL ID | | 091 | 092 | 001 | 002 | 001 | 002 | 001 | 002 | 003 | 003 | 005 | 005 | 006 | 006 | 007 | 007 | 008 | 008 | 009 | 009 | 001 | 001 | 002 | 003 |

Stomach, Glandular
Leukemia Granulocytic

+ +

CARDIOVASCULAR SYSTEM

Blood Vessel

+ +

Heart

+ +

Leukemia Granulocytic
Lymphoma Malignant
Schwannoma Benign

X
X

ENDOCRINE SYSTEM

Adrenal Cortex

+ +

Adenoma
Leukemia Granulocytic
Lymphoma Malignant

X
X

Adrenal Medulla

+ +

Islets, Pancreatic
Adenoma

+ +

Parathyroid Gland

+ +

Leukemia Granulocytic
Lymphoma Malignant

X

Pituitary Gland

+ +

Leukemia Granulocytic

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|
| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. Ctrl F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 6 | 5 | 7 | 7 | 6 | 6 | 6 | 7 | 4 | 7 | 6 | 4 | 7 | 6 | 7 | 6 | 5 | 6 | 7 | 7 | 5 | 6 | 6 | 5 | 5 | | |
| | 5 | 9 | 2 | 2 | 1 | 7 | 7 | 2 | 9 | 2 | 1 | 4 | 2 | 1 | 3 | 2 | 0 | 2 | 2 | 2 | 7 | 7 | 4 | 6 | 6 | 9 | |
| | 2 | 5 | 7 | 7 | 9 | 3 | 2 | 6 | 7 | 6 | 6 | 7 | 6 | 5 | 1 | 7 | 7 | 6 | 1 | 7 | 4 | 8 | 1 | 5 | 9 | | |
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | females
(cont...) | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | | 4 |
| | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | | |
| | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | |

Lymphoma Malignant
Pars Distalis, Adenoma
Pars Distalis, Carcinoma

X X X X X X X X X X X

Thyroid Gland
Leukemia Granulocytic
Lymphoma Malignant
Follicular Cell, Carcinoma

+ +

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland
Carcinoma

+ +

Fat Pad, Ovarian/parametrial

Ovary
Granulosa Cell Tumor Benign
Granulosa Cell Tumor Malignant
Leukemia Granulocytic
Lymphoma Malignant

+ +

X

Oviduct
Lymphoma Malignant

+ +

X

Uterus
Leukemia Granulocytic

+ +

- * .. Total animals with tissue examined microscopically; Total animals with tumor
- + .. Tissue examined microscopically
- X .. Lesion present
- I .. Insufficient tissue

- M .. Missing tissue
- A .. Autolysis precludes evaluation
- BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. Ctrl F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|---|--|--|
| | 0652 | 0595 | 0727 | 0727 | 0669 | 0666 | 0666 | 0722 | 0476 | 0762 | 0642 | 0742 | 0661 | 0673 | 0662 | 0507 | 0622 | 0722 | 0727 | 0574 | 0648 | 0621 | 0565 | 0559 | | | | | | |
| | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000091 | | | | |
| Spinal Cord, Lumbar | | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Thoracic | | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lipoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. Ctrl F | DAY ON TEST | 062 | 055 | 072 | 072 | 061 | 067 | 062 | 072 | 049 | 072 | 062 | 067 | 044 | 072 | 061 | 062 | 050 | 062 | 072 | 074 | 056 | 064 | 062 | 055 | 059 |
| | ANIMAL ID | 000 | 000 | 001 | 001 | 001 | 001 | 001 | 001 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 004 | 004 | 004 | 004 | 004 |
| | | 91 | 92 | 01 | 02 | 11 | 12 | 11 | 22 | 33 | 31 | 22 | 21 | 22 | 21 | 22 | 21 | 22 | 21 | 22 | 21 | 22 | 44 | 41 | 42 | 43 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

females
(cont...)

Multiple Organ
Leukemia Granulocytic
Lymphoma Malignant

+ +

X

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. Ctrl F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--|
| | 0727 | 0728 | 0728 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | | |
| ANIMAL ID | 04432 | 04441 | 04442 | 04445 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | | |
| Stomach, Glandular
Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | 34
1 | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Schwannoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. Ctrl F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
| | 0727 | 0728 | 0728 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | | 0729 |
| ANIMAL ID | 04432 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 | 04444 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Polyp Stromal | | | | | | | | | | | | | | | | | | | X | | | | | | | | | 5 |
| Endometrium, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Vagina | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | X | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymph Node | | | | + | | | | | | | | | + | + | | | | | | | | | | | | + | | 12 |
| Axillary, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cervical, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreatic, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Popliteal, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Renal, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 5 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

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RATS FEMALE
F1 Veh. Ctrl F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0727 | 0728 | 0728 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | |
| ANIMAL ID | 04432 | 04441 | 04442 | 04445 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | 04446 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Thymoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Epithelial Cell, Thymoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Adenocarcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Carcinosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fibroadenoma | | | | X | X | X | X | X | X | X | | | X | X | | | X | X | X | | | | | | 20 |
| Fibroadenoma, Multiple | | X | X | | | | | | | | | X | X | | X | | X | | X | | X | X | | | 21 |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mixed Tumor Benign | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Skin | | | | + | + | | | | | | + | + | | | | | | | | | + | + | | | 17 |
| Basal Cell Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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F1 Veh. Ctrl F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
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| | 0727 | 0728 | 0728 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | |
| ANIMAL ID | 04432 | 04441 | 04442 | 04451 | 04462 | 04466 | 04467 | 04471 | 04472 | 04478 | 04481 | 04482 | 04489 | 04490 | 04491 | 04492 | 04498 | 04499 | 04501 | 04502 | 04508 | 04509 | 04513 | 04519 | 04526 | 04533 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | 3 | 4 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

Squamous Cell Papilloma

1

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Joint, Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Carcinoma, Deep Invasion | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Leukemia Granulocytic | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 7 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 7 |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 7 |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 7 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
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|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | 07
27 | 07
28 | 07
28 | 07
29 | 05
07 | 05
07 | 04
08 | 06
04 | 06
04 | 07
07 | 06
02 | 06
08 | 07
09 | 04
03 | 04
01 | 05
07 | 06
04 | 06
09 | 07
07 | 05
00 | | 04
02 | 04
03 | 05
02 | 07
08 | 04
06 | 07
03 | 04
09 | 07
08 |
| ANIMAL ID | 04
44
34
21 | 04
44
44
14 | 04
44
44
24 | 04
44
55
15 | 06
66
66
16 | 06
66
55
25 | 06
66
55
75 | 06
66
55
85 | 06
66
55
95 | 06
66
55
05 | 06
66
55
15 | 06
66
55
25 | 06
66
55
35 | 06
66
44
04 | 08
88
00
10 | 08
88
00
20 | 08
88
00
30 | 08
88
00
40 | 08
88
00
50 | 08
88
00
60 | 08
88
00
70 | 08
88
00
80 | 08
88
00
90 | 08
88
00
00 | 08
88
00
10 | 08
88
00
20 | 08
88
00
30 | 08
88
00
40 | 08
88
00
50 |
| Spinal Cord, Lumbar | + | | | | | | | | | | | | | | | | | | | | 7 | | | | | | | | |
| Spinal Cord, Thoracic | + | | | | | | | | | | | | | | | | | | | | 7 | | | | | | | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | | | | | | | | | | | | | | | | | | | | 38 | | | | | | | | |
| Leukemia Granulocytic | X | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Nose | + | | | | | | | | | | | | | | | | | | | | 34 | | | | | | | | |
| Leukemia Granulocytic | X | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Trachea | + | | | | | | | | | | | | | | | | | | | | 32 | | | | | | | | |
| Leukemia Granulocytic | X | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | + | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | | | | | | | | | | | | | | | | | | | | 50 | | | | | | | | |
| Leukemia Granulocytic | X | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Lipoma | X | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | |

SYSTEMIC LESIONS

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0535 | 0085 | 0072 | 0054 | 0072 | 0073 | 0035 | 0066 | 0066 | 0066 | 0044 | 0077 | 0077 | 0077 | 0028 | 0072 | 0077 | 0077 | 0062 | 0066 | 0066 | 0057 | 0072 | 0077 | | |
| | 0025 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | | |
| | 51 | 22 | 61 | 62 | 71 | 72 | 81 | 82 | 91 | 92 | 11 | 12 | 21 | 22 | 31 | 32 | 41 | 42 | 51 | 52 | 71 | 72 | 81 | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | | + | | | + | + | + | + | + | | | | | + | | | + | | + | + | + |
| Intestine Large, Colon | + | + | | + | | | + | + | + | + | + | | | | | + | | | + | | + | + | + |
| Intestine Small, Ileum | + | + | | + | | | + | + | + | + | + | | | | | + | | | + | | + | + | + |
| Liver
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pancreas
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Forestomach | + | + | | + | | | + | + | + | + | + | | | | | + | | | + | | + | + | + |
| Stomach, Glandular | + | + | | + | | | + | + | + | + | + | | | | | + | | | + | | + | + | + |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart
Lymphoma Malignant
Schwannoma Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex
Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
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 X .. Lesion present
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RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|----------------------|
| | 0
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5 | 0
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5 | 0
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7 | 0
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9 | 0
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8 | 0
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7
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2
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7
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5 | 0
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6 | 0
6
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2 | 0
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7
1 | 0
0
2
8
2 | 0
0
2
8
1 | 0
0
2
9
2 | 0
0
2
9
1 | 0
0
2
9
1 | 0
2
4
1
2 | 0
2
4
1
2 | 0
2
4
2
2 | 0
2
4
3
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|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | |
| Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | X |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | X |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pars Distalis, Adenoma | | | X | X | X | X | | X | X | | X | X | | X | | | | X | | X | X | X | | X |
| Pars Distalis, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| C-cell, Carcinoma | | | | X | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosarcoma, Metastatic, Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |
| Thecoma Benign | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|----------------------|
| | 0535 | 0085 | 0077 | 0054 | 0072 | 0072 | 0032 | 0052 | 0062 | 0066 | 0044 | 0077 | 0077 | 0077 | 0022 | 0077 | 0077 | 0066 | 0066 | 0055 | 0077 | 0077 | 0077 | | |
| ANIMAL ID | 0025 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0024 | 0024 | 0024 | 0024 | 0024 | 0024 | 0024 | 0024 | 0024 | 0024 | 0024 | 0024 | 0024 | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyp Stromal | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Endometrium, Adenocarcinoma | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Epithelium, Squamous Cell Carcinoma | | | | | | | | | | X | | | | | | | | | | | | | | | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | + | | | + | | + | | | | | | | | + | | | + | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
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|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenocarcinoma | | | X | | | | | | | | | | | X | | | | | | | | | |
| Adenocarcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | X | |
| Adenoma | | | | | | | | | | | X | | | | | | | | | | | | |
| Fibroadenoma | | | | X | | X | X | | | | | | X | | X | | | X | X | | | | |
| Fibroadenoma, Multiple | | | X | | X | X | | | X | X | X | X | X | | | | X | X | X | | X | X | |
| Skin | + | | | | | | | + | | | | | | + | | + | | | | | | + | |
| Basal Cell Adenoma | | | | | | | | | | | | | | | | | | | | X | | | |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | X | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Carcinoma, Deep Invasion | | | | | | | | | | | | | | | | | | | | | | | |
| Oligodendroglioma Malignant | | | | | | | | | | | | | | | | | X | | | | | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Oligodendroglioma Malignant | | | | | | | | | | | | | | | | | X | | | | | | |
| Nerve Trigeminal | | | | | | | | | | | | | | + | + | | | + | + | | | + | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | | | | | | | | |
|--|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | | | | | | | | |
| ANIMAL ID | | 5 | 8 | 7 | 4 | 2 | 2 | 2 | 5 | 2 | 6 | 4 | 8 | 1 | 0 | 8 | 7 | 5 | 0 | 6 | 2 | | 6 | 6 | 5 | 7 | 7 | 2 | 2 | 8 | 2 | 8 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| | | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |

Peripheral Nerve, Sciatic

+ + + + +

Peripheral Nerve, Tibial

+ + + + +

Spinal Cord, Cervical

+ + + + +

Spinal Cord, Lumbar

+ + + + +

Spinal Cord, Thoracic

+ + + + +

RESPIRATORY SYSTEM

Lung

+ + + + + + + + + + + + + + + + +

Lymphoma Malignant

C-cell, Carcinoma, Metastatic, Thyroid Gland

X

Nose

+ + + + + + + + + + + + +

Trachea

+ + + + + + + + + + + + +

SPECIAL SENSES SYSTEM

Zymbal's Gland

+

Carcinoma

X

URINARY SYSTEM

Kidney

+ +

Lymphoma Malignant

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | 0535 | 0085 | 0072 | 0054 | 0072 | 0073 | 0056 | 0066 | 0066 | 0044 | 0077 | 0077 | 0072 | 0088 | 0072 | 0077 | 0077 | 0066 | 0066 | 0055 | 0077 | 0077 |
| | ANIMAL ID | 0025 | 0026 | 0027 | 0028 | 0029 | 0030 | 0031 | 0032 | 0033 | 0034 | 0035 | 0036 | 0037 | 0038 | 0039 | 0040 | 0041 | 0042 | 0043 | 0044 | 0045 | 0046 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | |

females
(cont...)

Urinary Bladder

SYSTEMIC LESIONS

Multiple Organ
Lymphoma Malignant

+ +

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|--|
| | 0727 | 0715 | 0728 | 0748 | 0707 | 0766 | 0776 | 0777 | 0755 | 0755 | 0776 | 0766 | 0766 | 0755 | 0777 | 0777 | 0744 | 0755 | 0755 | 0777 | | 0766 | 0766 | 0755 | 0755 | |
| ANIMAL ID | 04592 | 0446 | 0446 | 0446 | 0446 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0488 | 0488 | 0488 | 0488 | 0488 | 0488 | 0488 | 0488 | 0488 | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Pheochromocytoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | 1 | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Pars Distalis, Adenoma | X | | X | | | | X | | | | X | | X | | X | X | | | | | | X | | 22 | | |
| Pars Distalis, Carcinoma | | | | | | | | | | | | | | | | | | | X | | | | | 1 | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| C-cell, Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tissue NOS | | | | | | + | | | | | | | | | | | | | | | | | | 1 | | |
| Fibrosarcoma, Metastatic, Clitoral Gland | | | | | | X | | | | | | | | | | | | | | | | | | 1 | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | | | | | + | + | | | + | | | | | | | | | | + | + | | | 7 | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | X | | | 1 | | |
| Fibrosarcoma | | | | | | X | | | | | | | | | | | | | | | | | | 1 | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Lymphoma Malignant | | | | | | | | | | X | | | | | | | | | | | | | | 1 | | |
| Thecoma Benign | | | | | | | | | | | | X | | | | | | | | | | | | 1 | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
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|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Polyp Stromal | | | | | X | X | | | | | | | | | | | | | | | | | | | 3 |
| Endometrium, Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Epithelium, Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Lymph Node | | + | | | | | + | | | | | + | | | | | | | | | | | + | | 9 |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Renal, Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Lymph Node, Mesenteric | | | | | | | | | | | | | + | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|------|
| | 0727 | 0715 | 0728 | 0748 | 0707 | 0766 | 0776 | 0779 | 0758 | 0758 | 0772 | 0768 | 0766 | 0755 | 0777 | 0770 | 0744 | 0755 | 0755 | 0772 | | 0766 | 0766 | 0755 | 0729 | 0751 |
| ANIMAL ID | 04592 | 04461 | 04462 | 04461 | 04461 | 04661 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | 04667 | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Adenocarcinoma | | | | | | | X | | | | | | | | | | | | | | | | | | 3 | |
| Adenocarcinoma, Multiple | X | | X | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Fibroadenoma | | | X | | | | | | | | | | | | | | | | | | | | | | 8 | |
| Fibroadenoma, Multiple | X | X | | | | X | X | | X | X | X | X | X | X | X | X | X | X | X | X | | X | X | | 32 | |
| Skin | + | | | | | | + | + | | | | | | | + | + | | | | | | + | | | 12 | |
| Basal Cell Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Skeletal Muscle | | | | | | | | | | | | + | | | | | | | | | | | | | 1 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Carcinoma, Deep Invasion | | | | | | | | | | | | | | | | | | | | | | | X | | 1 | |
| Oligodendroglioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Oligodendroglioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Nerve Trigeminal | | | | + | | | | | | + | + | + | | | + | | | | + | | + | | | | 12 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
| | 077 | 077 | 077 | 071 | 066 | 066 | 077 | 077 | 055 | 055 | 077 | 066 | 066 | 055 | 077 | 077 | 044 | 055 | 055 | 077 | | 066 | 066 | 055 |
| ANIMAL ID | 04592 | 04461 | 04462 | 04461 | 04461 | 04667 | 04667 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04888 | 04888 | 04888 | 04888 | 04888 | 04888 | 04888 | 04888 | 04888 |
| Peripheral Nerve, Sciatic | | | | + | | | | | | + | + | + | | | | + | | | + | + | | | | 12 |
| Peripheral Nerve, Tibial | | | | + | | | | | | | + | + | + | | | + | | | + | + | | | | 12 |
| Spinal Cord, Cervical | | | | A | | | | | | | + | + | + | | | + | | | + | + | | | | 11 |
| Spinal Cord, Lumbar | | | | + | | | | | | | + | + | + | | | + | | | + | + | | | | 12 |
| Spinal Cord, Thoracic | | | | A | | | | | | | + | + | + | | | + | | | + | + | | | | 11 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | + | | + | + | + | | | | + | + | | | + | + | + | + | | | + | + | + | 32 |
| Lymphoma Malignant | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| C-cell, Carcinoma, Metastatic, Thyroid Gland | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nose | | | + | | + | + | + | | | | + | + | | | + | + | + | | | + | + | + | | 29 |
| Trachea | | | + | | + | + | + | | | | + | + | | | + | + | + | | | + | + | + | | 29 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | | + | | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 6 | 4 | 5 | 6 | 6 | 5 | 5 | 5 | 4 | 5 | 6 | 5 | 5 | 5 | 7 | 6 | 6 | 6 | 5 | 7 | 7 | 7 | 7 | |
| | | 3 | 3 | 3 | 9 | 1 | 4 | 0 | 1 | 4 | 4 | 2 | 7 | 4 | 4 | 1 | 2 | 4 | 1 | 1 | 4 | 2 | 2 | 2 | 2 | |
| | | 9 | 2 | 5 | 4 | 6 | 5 | 8 | 5 | 2 | 2 | 5 | 2 | 0 | 0 | 5 | 8 | 7 | 1 | 0 | 2 | 7 | 7 | 8 | 9 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | |
| | | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 4 | 4 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 5 | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oviduct | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyp Stromal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vagina | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Bone Marrow | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|--|-----------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | ANIMAL ID | 0139 | 0162 | 0145 | 0156 | 0166 | 0155 | 0155 | 0155 | 0144 | 0155 | 0166 | 0155 | 0155 | 0177 | 0166 | 0166 | 0155 | 0177 | 0177 | 0177 | 0177 | 0155 | 0177 | 0155 | | |
| | | 0041 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | | 0044 |
| | | 1111 | 2211 | 2211 | 3311 | 3321 | 4411 | 4421 | 5511 | 5521 | 6611 | 6621 | 7711 | 7721 | 8811 | 8821 | 9911 | 9921 | 0011 | 0011 | 1121 | 1132 | 1144 | 1144 | 1144 | 1155 | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem
Glioma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebellum
Glioma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebrum
Glioma Malignant
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung
Alveolar/Bronchiolar Adenoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|----------------------|
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Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site

X

Nose
Lymphoma Malignant

+ +

Trachea
Lymphoma Malignant

+ +

SPECIAL SENSES SYSTEM

Eye

+

URINARY SYSTEM

Kidney
Lymphoma Malignant

+ +

SYSTEMIC LESIONS

Multiple Organ
Lymphoma Malignant

+ +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | | 5 | 3 | 5 | 3 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 4 | 6 | 4 | 5 | 7 | 7 | 7 | 7 | 4 | 6 |
| | | 5 | 8 | 0 | 1 | 2 | 8 | 2 | 2 | 7 | 2 | 2 | 6 | 1 | 9 | 5 | 2 | 2 | 2 | 2 | 8 | 8 |
| F1 25.0 BPA F | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 7 | 7 | 7 |
| | | 5 | 6 | 6 | 7 | 7 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 0 |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------------|-----------------------|
| Esophagus | + | + | + | + | | + | | | | + | | + | + | + | + | | | | | + | + | 32 | |
| Intestine Large, Cecum | | | + | | | | | | | | | | | | | | | | | | | 1 | |
| Intestine Large, Colon | + | + | + | + | | + | | | | + | | | + | + | + | + | | | | | + | + | 31 |
| Intestine Small, Ileum
Lymphoma Malignant | + | + | + | + | | + | | | | + | | | + | + | + | + | | | | | + | + | 31
1 |
| Intestine Small, Jejunum
Adenocarcinoma | | | + | | | | | | | | | | | | | | | | | | | 2
1 | |
| Liver
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1 | |
| Mesentery | | | | | | | | | | | + | | | | | + | | | | | | 3 | |
| Pancreas
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1 | |
| Stomach, Forestomach
Squamous Cell Papilloma | + | + | + | + | | + | + | | | + | | | + | + | + | + | | | | | + | + | 34
1 |
| Stomach, Glandular | + | + | + | + | | + | | | | + | | | + | + | + | + | | | | | + | + | 31 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | | | | |
|---|-----------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----|-----|-----|-----|-----|-----|
| | 050 | 038 | 050 | 031 | 072 | 058 | 072 | 076 | 007 | 007 | 004 | 006 | 004 | 005 | 007 | 007 | 002 | 002 | 002 | 002 | | | 004 | 006 | 008 | 008 | 003 |
| | 047 | 047 | 047 | 047 | 047 | 068 | 066 | 066 | 066 | 066 | 066 | 066 | 066 | 066 | 088 | 088 | 088 | 088 | 088 | 088 | 086 | 086 | 086 | 087 | 087 | 080 | 080 |
| | 25 | 16 | 26 | 17 | 27 | 14 | 24 | 15 | 25 | 16 | 26 | 17 | 27 | 18 | 28 | 19 | 29 | 10 | 20 | 11 | 21 | 12 | 22 | 13 | 23 | 14 | 24 |
| | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Islets, Pancreatic Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Adenoma | | | X | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pars Distalis, Adenoma | | | | | | | X | | | X | | | | | X | | X | | | | | X | X | | | | 12 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| C-cell, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

GENERAL BODY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|---|-------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | ANIMAL ID | 5 | 3 | 5 | 3 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 4 | 6 | 4 | 5 | 7 | 7 | 7 | 7 | 4 | 6 |
| | | 5 | 8 | 0 | 1 | 2 | 8 | 2 | 2 | 7 | 2 | 2 | 6 | 1 | 9 | 5 | 2 | 2 | 2 | 2 | 8 | 2 |
| | | 0 | 8 | 6 | 0 | 7 | 2 | 4 | 5 | 9 | 8 | 8 | 9 | 8 | 0 | 2 | 8 | 8 | 8 | 8 | 3 | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 7 | 7 | 7 |
| | | 5 | 6 | 6 | 7 | 7 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 0 |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| Lymph Node, Mandibular
Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | 4
1 |
| Lymph Node, Mesenteric
Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | 2
1 |
| Spleen
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1 |
| Thymus
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 44
1 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Adenocarcinoma | | | | | | X | X | | | | | | | | | | | | | | | | 3 |
| Adenocarcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | X | | 3 |
| Adenoma | | | | | | | | | | | | | | | | | | X | | | | | 2 |
| Fibroadenoma | X | | | | | X | | | | | | X | X | | | | | | | | | X | 13 |
| Fibroadenoma, Multiple | | | X | | | | X | X | X | X | X | | | | X | X | X | X | X | | | | 20 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Skin | + | | + | | | | | | | + | + | | | + | + | | | | + | + | | | 14 |
| Subcutaneous Tissue, Lipoma | | | | | | | | | | | | | | | | | | | | | X | | 2 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Skeletal Muscle | | | | | | + | | | | | | | | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | | 5 | 3 | 5 | 3 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 4 | 6 | 4 | 5 | 7 | 7 | 7 | 7 | 4 | 6 |
| | | 5 | 8 | 0 | 1 | 2 | 8 | 2 | 2 | 7 | 2 | 2 | 6 | 1 | 9 | 5 | 2 | 2 | 2 | 2 | 8 | 2 |
| | | 0 | 8 | 8 | 6 | 0 | 7 | 2 | 4 | 5 | 9 | 8 | 8 | 9 | 8 | 0 | 2 | 8 | 8 | 8 | 8 | 3 |
| F1 25.0 BPA F | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 7 | 7 |
| | | 5 | 6 | 6 | 7 | 7 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 8 | 9 | 9 | 0 | 0 | 0 |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------------------------|
| Brain, Brain Stem
Glioma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1 |
| Brain, Cerebellum
Glioma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1 |
| Brain, Cerebrum
Glioma Malignant
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1
1 |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | 2 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | 2 |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | 2 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|--|---|--|---|---|--|---|---|---|---|---|--|--|--|--|--|--|-----------------------------------|
| Lung
Alveolar/Bronchiolar Adenoma
Lymphoma Malignant | + | + | + | + | | + | | + | + | | + | + | + | + | + | | | | | | | 34
1
1 |
|--|---|---|---|---|--|---|--|---|---|--|---|---|---|---|---|--|--|--|--|--|--|-----------------------------------|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| DAY ON TEST | | 5 | 3 | 5 | 3 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 4 | 6 | 4 | 5 | 7 | 7 | 7 | 7 | 4 | 6 |
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | | 5 | 8 | 0 | 1 | 2 | 8 | 2 | 2 | 7 | 2 | 2 | 6 | 1 | 9 | 5 | 2 | 2 | 2 | 8 | 8 | 2 |
| F1 25.0 BPA F | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| ANIMAL ID | | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 7 | 7 | 7 |
| | | 5 | 6 | 6 | 7 | 7 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 0 |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
| Yolk Sac Carcinoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nose Lymphoma Malignant | | + | + | + | + | | + | | + | | + | + | + | + | | | | | | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | 32 |
| | | | | | | | | | | | | | | | | | | | | | | 1 |
| Trachea Lymphoma Malignant | | + | + | + | + | | + | | + | | + | + | + | + | | | | | | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | 32 |
| | | | | | | | | | | | | | | | | | | | | | | 1 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | | | | 1 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Kidney Lymphoma Malignant | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | 46 |
| | | | | | | | | | | | | | | | | | | | | | | 1 |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ Lymphoma Malignant | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | 46 |
| | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|------|------|
| | 0599 | 0477 | 0727 | 0583 | 0687 | 0774 | 0779 | 0777 | 0582 | 0554 | 0551 | 0475 | 0625 | 0663 | 0665 | 0596 | 0556 | 0722 | 0668 | 0378 | | | 0767 | 0670 | 0663 | 0720 |
| | 0057 | 0047 | 0005 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0002 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0022 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 |

Heart +

ENDOCRINE SYSTEM

Adrenal Cortex Adenoma + + + + X + + + + + + + + + + + + + + X + + + + + + + +

Adrenal Medulla Pheochromocytoma Benign + X + + + + +

Islets, Pancreatic +

Parathyroid Gland + + + + + + + + + + + + + + + M + + + + + + + + + + + +

Pituitary Gland Pars Distalis, Adenoma +
 Pars Intermedia, Adenoma X

Thyroid Gland +

GENERAL BODY SYSTEM

Tissue NOS

GENITAL SYSTEM

Clitoral Gland Carcinoma Fibrosarcoma +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| | 0599 | 0477 | 0727 | 0588 | 0677 | 0777 | 0777 | 0777 | 0555 | 0555 | 0444 | 0666 | 0777 | 0666 | 0666 | 0555 | 0555 | 0777 | 0666 | 0333 | 0777 | 0666 | 0666 | 0777 | |
| ANIMAL ID | 00572 | 00581 | 00582 | 00591 | 00602 | 00606 | 00606 | 00606 | 00611 | 00612 | 00612 | 00612 | 00612 | 00612 | 00612 | 00612 | 00612 | 00612 | 00612 | 00612 | 00612 | 00612 | 00612 | 00612 | |
| Fat Pad, Ovarian/parametrial | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Granulosa Cell Tumor Benign | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yolk Sac Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Polyp Stromal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Yolk Sac Carcinoma, Metastatic, Ovary | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node | + | | | | | + | | + | | + | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | |
| Yolk Sac Carcinoma, Metastatic, Ovary | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|-------|-------|-------|-------|
| | 0599 | 0479 | 0727 | 0583 | 0687 | 0772 | 0770 | 0772 | 0584 | 0554 | 0475 | 0664 | 0778 | 0663 | 0665 | 0596 | 0552 | 0727 | 0668 | 0378 | | 0760 | 0670 | 0663 | 0725 |
| ANIMAL ID | 00572 | 00581 | 00582 | 00591 | 00592 | 00601 | 00602 | 00606 | 00611 | 00612 | 00613 | 00617 | 00618 | 00621 | 00622 | 00627 | 00628 | 00631 | 00632 | 00641 | 00644 | 00648 | 00649 | 00651 | 00652 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenocarcinoma | | | | | X | | | | | | | | | | | | | | | | X | | | |
| Adenocarcinoma, Multiple | | | | | | | | | | | X | | | | | | | | X | | | | | |
| Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | X | | |
| Fibroadenoma | X | | | | | X | | | X | | | | | | | | | | X | | | | | |
| Fibroadenoma, Multiple | | X | | X | X | | X | X | | X | X | | | X | X | | X | X | | X | | X | X | X |
| Skin | | | + | + | | | | + | | + | | + | | | | | | | + | | | + | | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | |
| Subcutaneous Tissue, Lipoma | | | | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | + |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Glioma Malignant | | | | | | | | | | | | | | | | | | | | | | X | | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | + | + |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
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 2 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0599 | 0477 | 0727 | 0583 | 0687 | 0724 | 0779 | 0777 | 0527 | 0584 | 0414 | 0675 | 0728 | 0636 | 0665 | 0596 | 0552 | 0767 | 0638 | 0378 | 0727 | 0670 | 0663 | 0725 | | |
| | 0057 | 0047 | 0002 | 0008 | 0008 | 0022 | 0002 | 0008 | 0004 | 0004 | 0005 | 0004 | 0006 | 0007 | 0006 | 0006 | 0006 | 0005 | 0005 | 0007 | 0006 | 0003 | 0007 | 0006 | 0006 | 0007 |
| | 0057 | 0005 | 0005 | 0005 | 0005 | 0006 | 0006 | 0006 | 0006 | 0007 | 0007 | 0007 | 0007 | 0007 | 0007 | 0007 | 0007 | 0007 | 0007 | 0007 | 0008 | 0008 | 0009 | 0009 | 0009 | 0009 |
| | 721 | 812 | 812 | 911 | 912 | 010 | 012 | 111 | 113 | 332 | 441 | 442 | 551 | 552 | 661 | 662 | 771 | 772 | 881 | 882 | 990 | 991 | 001 | 001 | 002 | |

Peripheral Nerve, Tibial
 Spinal Cord, Cervical
 Spinal Cord, Lumbar
 Spinal Cord, Thoracic

+
 +
 +
 +

RESPIRATORY SYSTEM

Lung
 Nose
 Trachea

+
 +
 + + + + + + + + + + + A + + + + + + + + + +

SPECIAL SENSES SYSTEM

Ear
 Neural Crest Tumor, Benign

+
 X

URINARY SYSTEM

Kidney
 Urinary Bladder

+
 + + + + +

SYSTEMIC LESIONS

Multiple Organ

+ +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
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 Bisphenol A
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 2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|--------------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|--|
| DAY ON TEST | | 5 | 6 | 5 | 4 | 7 | 7 | 5 | 5 | 7 | 7 | 5 | 7 | 6 | 7 | 7 | 6 | 2 | 5 | 5 | 6 | 4 | 6 | 6 | 6 | 6 | |
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | | 9 | 1 | 4 | 9 | 0 | 2 | 0 | 8 | 2 | 2 | 5 | 2 | 9 | 2 | 2 | 0 | 6 | 9 | 8 | 7 | 4 | 2 | 5 | 4 | 9 | |
| F1 250.0BPA F | | 7 | 8 | 3 | 9 | 8 | 7 | 6 | 3 | 7 | 0 | 7 | 8 | 3 | 8 | 9 | 5 | 2 | 7 | 1 | 1 | 6 | 5 | 2 | 9 | | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | |
| | | 2 | 2 | 3 | 3 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | + | + | + | + | | + | + | | | | + | + | | | | + | + | + | + | + | + | + | + | + | + | + | 36 |
| Intestine Large, Colon | + | + | + | + | + | | + | + | | | | + | + | | | | A | + | + | A | + | + | + | + | + | + | + | 32 |
| Intestine Small, Ileum | + | + | + | + | + | | + | + | | | | + | + | | | | A | + | + | A | + | + | + | + | + | + | + | 32 |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Sarcoma, Metastatic, Spleen | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Yolk Sac Carcinoma, Metastatic, Ovary | X | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Mesentery | + | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Yolk Sac Carcinoma, Metastatic, Ovary | X | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Yolk Sac Carcinoma, Metastatic, Ovary | X | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Stomach, Forestomach | + | + | + | + | + | | + | + | | | | + | + | | | | + | + | + | + | + | + | + | + | + | + | + | 36 |
| Stomach, Glandular | + | + | + | + | + | | + | + | | | | + | + | | | | + | + | + | + | + | + | + | + | + | + | + | 35 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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 BLANK .. Not examined microscopically

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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--|--|
| | 0597 | 0618 | 0543 | 0499 | 0708 | 0778 | 0556 | 0553 | 0787 | 0770 | 0527 | 0758 | 0633 | 0778 | 0769 | 0625 | 0262 | 0597 | 0581 | 0661 | 0446 | 0625 | 0662 | 0664 | | | |
| ANIMAL ID | 049221 | 044922 | 044311 | 044323 | 066881 | 066892 | 066899 | 066899 | 066899 | 066899 | 077000 | 077000 | 077000 | 077000 | 077000 | 077000 | 088222 | 088222 | 088222 | 088222 | 088222 | 088222 | 088222 | 088222 | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Parathyroid Gland | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Pars Distalis, Adenoma | | | | | X | | | | | | X | | X | | X | X | X | | | | | | | 20 | | | |
| Pars Intermedia, Adenoma | | | | | | | | | | | | | | | | | | | | | | | X | X | 1 | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | + | | | | | | | | | + | | | | + | + | | | | | | + | | | 7 | | |
| Carcinoma | | | | | | | | | | | X | | | | | | | | | | | | | | 1 | | |
| Fibrosarcoma | | | X | | | | | | | | | | | | | | | | | | | | | | 1 | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
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M .. Missing tissue
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RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|
| | 0597 | 0618 | 0543 | 0499 | 0708 | 0777 | 0555 | 0583 | 0727 | 0770 | 0527 | 0768 | 0673 | 0778 | 0669 | 0226 | 0597 | 0581 | 0661 | 0446 | | 0665 | 0664 |
| ANIMAL ID | 0492 | 0499 | 0499 | 0493 | 0698 | 0691 | 0699 | 0699 | 0700 | 0700 | 0700 | 0700 | 0700 | 0701 | 0701 | 0808 | 0808 | 0808 | 0808 | 0808 | 0808 | 0808 | 0808 |
| Fat Pad, Ovarian/parametrial | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Granulosa Cell Tumor Benign | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Yolk Sac Carcinoma | X | | | | | | | | | | | | | | | | | | | | | | 1 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Polyp Stromal | X | | X | | | | | | | | | | | | | | | | | | | | 2 |
| Yolk Sac Carcinoma, Metastatic, Ovary | X | | | | | | | | | | | | | | | | | | | | | | 1 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymph Node | | + | | | | | | + | + | | | | | | + | | | | | | | | 8 |
| Lymph Node, Mandibular | | + | | | | | | | | | | | | | | | | | | | | | 2 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Sarcoma | | | | | | | | | | | | | | | | | | | X | | | | 1 |
| Yolk Sac Carcinoma, Metastatic, Ovary | X | | | | | | | | | | | | | | | | | | | | | | 1 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
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| | 0597 | 0618 | 0543 | 0499 | 0708 | 0777 | 0555 | 0558 | 0727 | 0772 | 0552 | 0779 | 0663 | 0778 | 0669 | 0725 | 0552 | 0557 | 0661 | 0446 | 0665 | 0662 | 0664 | 0669 | | |
| ANIMAL ID | 04921 | 04922 | 04931 | 04932 | 06681 | 06682 | 06661 | 06662 | 07701 | 07702 | 07700 | 07701 | 07771 | 07772 | 07781 | 07782 | 08881 | 08882 | 08883 | 08884 | 08885 | 08881 | 08882 | 08881 | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | X | | | 3 | |
| Adenocarcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Adenoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Fibroadenoma | | | | X | | | X | | | | | | | | | | X | | | | | | | | 7 | |
| Fibroadenoma, Multiple | | | X | | X | | | X | X | X | X | X | X | X | X | X | | X | | X | | X | X | X | 32 | |
| Skin | | + | | | | | | + | | | + | + | | | + | | | | | | | | | | 12 | |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Subcutaneous Tissue, Lipoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Glioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Nerve Trigeminal | | | | | + | | | | + | + | + | | + | | | | + | + | + | + | | | | | 12 | |
| Peripheral Nerve, Sciatic | | | | | + | | | | + | + | + | | + | | | | + | + | + | + | | | | | 12 | |

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 + .. Tissue examined microscopically
 X .. Lesion present
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--|
| | 0597 | 0618 | 0543 | 0499 | 0708 | 0727 | 0556 | 0583 | 0727 | 0727 | 0525 | 0728 | 0623 | 0728 | 0676 | 0222 | 0597 | 0581 | 0646 | 0465 | 0625 | 0652 | 0664 | 0669 | | |
| ANIMAL ID | 04921 | 04922 | 04931 | 04932 | 06681 | 06682 | 06691 | 06692 | 07700 | 07701 | 07702 | 07710 | 07711 | 07720 | 07721 | 08880 | 08881 | 08882 | 08883 | 08884 | 08885 | 08886 | 08887 | 08888 | | |
| Peripheral Nerve, Tibial | | | | | + | | | | | + | + | + | | + | | | | | | + | + | + | + | | 12 | |
| Spinal Cord, Cervical | | | | | + | | | | | + | + | + | | + | | | | | | + | + | + | + | | 12 | |
| Spinal Cord, Lumbar | | | | | + | | | | | + | + | + | | + | | | | | | + | + | + | + | | 12 | |
| Spinal Cord, Thoracic | | | | | + | | | | | + | + | + | | + | | | | | | + | + | + | + | | 12 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | | | + | + | | | + | + | | | + | + | + | + | + | + | + | + | + | 39 | |
| Nose | + | + | + | + | + | | | + | + | | | + | + | | | + | + | + | + | + | + | + | + | + | 36 | |
| Trachea | + | + | + | + | + | | | + | + | | | + | + | | | A | + | + | + | + | + | + | + | + | 34 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ear | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Neural Crest Tumor, Benign | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
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 2 Year Animals

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | females
(cont...) | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-------------|-----------|----------------------|-------------|------------------|-----------------------|----------------------------|-----------------------|-----------------------|----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | | 6
1
3 | 7
0
2 | 7
2
7 | 4
2
6 | 7
2
7 | 6
1
8 | 4
4
7 | 5
6
2 | 4
4
9 | 4
2
0 | 4
7
4 | 5
6
3 | 5
2
2 | 6
7
2 | 2
9
0 | 6
0
4 | 7
2
6 | 7
2
2 | 5
3
8 | 2
5
7 | 5
8
0 | 4
6
6 | 5
7
6 | | | 6
7
4 | 0
7
3
1 | 0
0
7
3
1 | 0
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1 | 0
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1 | 0
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1 | 0
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2 | 0
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2 | 0
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9
2 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | | + | + | + | + | + | + | + | + | + | + | + | | + | | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | | + | + | + | + | + | + | + | + | A | + | + | | A | | + | A | + | + | + | + |
| Intestine Small, Ileum | + | + | | + | + | + | A | + | + | + | + | A | + | + | | A | | A | A | + | + | + | + |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hepatocellular Adenoma | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | + | + | | + | + | + | + | + | + | + | + | + | + | + | | + | | + | + | + | + | + | + |
| Stomach, Glandular | + | + | | + | + | + | + | + | + | + | + | A | + | + | | A | | + | A | + | + | + | + |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | X | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
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 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
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 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| | 0613 | 0702 | 0727 | 0426 | 0727 | 0648 | 0452 | 0444 | 0444 | 0542 | 0442 | 0443 | 0552 | 0622 | 0267 | 0790 | 0604 | 0776 | 0772 | 0553 | 0257 | 0580 | 0466 | 0577 | 0674 | |
| ANIMAL ID | 00731 | 00734 | 00741 | 00742 | 00751 | 00752 | 00761 | 00762 | 00771 | 00772 | 00781 | 00782 | 00791 | 00792 | 00801 | 00802 | 00811 | 00812 | 00821 | 00822 | 00831 | 00832 | 00841 | 00842 | 00851 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | |
| Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | X | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | |
| Pars Distalis, Adenoma | | | | | X | | | X | | | | | X | X | | | | X | X | X | | | X | X |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | |
| Leiomyosarcoma | | | | | | | | | | | | | | | | | | | | | | | | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | + | + | + | | | | | | | | | | | | | | | | | | | + |
| | | | X | X | | | | | | | | | | | | | | | | | | | | X |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|------|------|
| | 0613 | 0702 | 0707 | 0422 | 0722 | 0618 | 0427 | 0542 | 0444 | 0444 | 0545 | 0522 | 0626 | 0266 | 0727 | 0722 | 0722 | 0525 | 0225 | 0525 | | | 0426 | 0527 | 0627 | 0526 |
| | 0031 | 0032 | 0034 | 0042 | 0051 | 0052 | 0061 | 0062 | 0071 | 0072 | 0081 | 0082 | 0091 | 0092 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 |

Fat Pad, Ovarian/parametrial

Ovary
Lymphoma Malignant

Oviduct

Uterus
Polyp Stromal
Endometrium, Adenocarcinoma

Vagina

HEMATOPOIETIC SYSTEM

Bone Marrow
Lymphoma Malignant

Lymph Node
Axillary, Lymphoma Malignant
Iliac, Lymphoma Malignant
Inguinal, Lymphoma Malignant
Pancreatic, Lymphoma Malignant
Renal, Lymphoma Malignant

Lymph Node, Mandibular
Lymphoma Malignant

Spleen
Lymphoma Malignant

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| | 0613 | 0702 | 0727 | 0426 | 0727 | 0648 | 0452 | 0546 | 0442 | 0444 | 0555 | 0527 | 0667 | 0229 | 0604 | 0776 | 0722 | 0728 | 0537 | 0257 | 0580 | 0466 | 0576 | 0674 | |
| ANIMAL ID | 00731 | 00734 | 00741 | 00742 | 00751 | 00752 | 00761 | 00762 | 00771 | 00772 | 00788 | 00789 | 00799 | 00799 | 00811 | 00812 | 00822 | 00822 | 00833 | 00835 | 00855 | 00856 | 00866 | 00871 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Nerve Trigeminal | | + | | | | | | | | + | | | | | | + | | | + | | + | | | + | |
| Peripheral Nerve, Sciatic | | + | | | | | | | | + | | | | | | + | | | + | | + | | | + | |
| Peripheral Nerve, Tibial | | + | | | | | | | | + | | | | | | + | | | + | | + | | | + | |
| Spinal Cord, Cervical | | + | | | | | | | | + | | | | | | + | | | + | | + | | | + | |
| Spinal Cord, Lumbar | | + | | | | | | | | + | | | | | | + | | | + | | + | | | + | |
| Spinal Cord, Thoracic | | + | | | | | | | | + | | | | | | + | | | + | | + | | | + | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Nose | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | | | + | | A | + | + | + | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | X | | | | | | | | | |
| Osteosarcoma | | | | | | | | | | | | | | | | | | | | | X | | | | |
| Trachea | + | + | | + | + | + | + | + | + | + | + | + | + | A | + | + | | | + | | + | A | + | + | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | 0613 | 0702 | 0722 | 0746 | 0778 | 0847 | 0852 | 0944 | 0944 | 0944 | 0955 | 0955 | 0966 | 0972 | 0972 | 0977 | 0983 | 0983 | 0985 | 0985 | 0986 | 0986 | 0987 | 0987 | 0988 | 0988 | 0989 | 0989 | 0990 | 0990 | 0991 | 0991 | 0992 | 0992 | 0993 | 0993 | 0994 | 0994 | 0995 | 0995 | 0996 | 0996 | 0997 | 0997 | | | | | |
| | ANIMAL ID | 00731 | 00732 | 00741 | 00742 | 00751 | 00752 | 00761 | 00762 | 00771 | 00772 | 00781 | 00782 | 00791 | 00792 | 00801 | 00802 | 00811 | 00812 | 00821 | 00822 | 00831 | 00832 | 00841 | 00842 | 00851 | 00852 | 00861 | 00862 | 00871 | 00872 | 00881 | 00882 | 00891 | 00892 | 00901 | 00902 | 00911 | 00912 | 00921 | 00922 | 00931 | 00932 | 00941 | 00942 | 00951 | 00952 | 00961 | 00962 | 00971 |

females
(cont...)

Adenoma
 Carcinoma

URINARY SYSTEM

Kidney
 Lymphoma Malignant

+
 X

SYSTEMIC LESIONS

Multiple Organ
 Lymphoma Malignant

+
 X

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| | 04 | 07 | 04 | 06 | 07 | 07 | 07 | 06 | 04 | 06 | 05 | 06 | 06 | 05 | 06 | 04 | 04 | 06 | 07 | 04 | 07 | 07 | 05 | 05 | |
| ANIMAL ID | 068 | 020 | 071 | 045 | 029 | 025 | 022 | 023 | 039 | 011 | 009 | 007 | 008 | 005 | 006 | 004 | 004 | 006 | 007 | 004 | 007 | 007 | 005 | 005 | 005 |
| | 000 | 000 | 000 | 000 | 000 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 | 001 |
| | 007 | 008 | 008 | 009 | 009 | 002 | 002 | 003 | 003 | 004 | 004 | 005 | 005 | 006 | 006 | 006 | 007 | 007 | 008 | 008 | 009 | 009 | 000 | 000 | 000 |
| | 002 | 001 | 002 | 001 | 002 | 001 | 002 | 001 | 002 | 001 | 002 | 001 | 002 | 001 | 002 | 001 | 002 | 001 | 002 | 001 | 002 | 001 | 002 | 001 | 002 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pheochromocytoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Adenoma | | | | | | | | | | | | | | | X | | | | | | | | | | | 2 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pituitary Gland | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Pars Distalis, Adenoma | | X | | X | | X | X | X | | X | | | X | | | | | | X | | | | X | | | 19 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|---|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leiomyosarcoma | | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|--|--|--|--|---|--|---|--|--|--|--|--|--|--|--|--|--|--|--|---|--|---|
| Clitoral Gland | | | | | | | | | + | | + | | | | | | | | | | | | | | | 8 |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | X | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|---|----|
| | 04 | 07 | 04 | 06 | 07 | 07 | 07 | 06 | 04 | 06 | 05 | 06 | 06 | 05 | 06 | 04 | 04 | 06 | 07 | 04 | 07 | 07 | 05 | 05 | 05 | | | |
| ANIMAL ID | 05 | 05 | 05 | 05 | 05 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 09 | 09 | 09 | | | |
| Fat Pad, Ovarian/parametrial | | | | | | | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Uterus | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Polyp Stromal | | X | | | | | | | | | | | | | X | | | | | | | | | | | | | 4 |
| Endometrium, Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymph Node | + | | | | | | | | | | | | | | | | | | | | | | | | | + | | 4 |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Iliac, Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inguinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreatic, Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Renal, Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymph Node, Mandibular | + | | | | | | | | | | | | | | | | | | | | | | | | | + | | 4 |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| | 04 | 07 | 04 | 06 | 07 | 07 | 07 | 06 | 04 | 06 | 05 | 06 | 06 | 05 | 06 | 04 | 04 | 06 | 07 | 04 | 07 | 07 | 05 | 05 | |
| ANIMAL ID | 068 | 020 | 071 | 045 | 029 | 025 | 022 | 023 | 039 | 011 | 009 | 007 | 008 | 006 | 005 | 008 | 003 | 009 | 008 | 007 | 008 | 005 | 009 | 008 | |
| | 050 | 050 | 050 | 050 | 050 | 071 | 071 | 071 | 071 | 071 | 071 | 071 | 071 | 071 | 071 | 088 | 088 | 088 | 088 | 088 | 088 | 088 | 099 | 099 | 099 |
| | 072 | 081 | 082 | 081 | 092 | 091 | 022 | 032 | 033 | 041 | 042 | 051 | 052 | 061 | 062 | 061 | 072 | 071 | 082 | 081 | 082 | 091 | 092 | 001 | 002 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Thymus | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenocarcinoma | | | | | | | X | | | | X | | | X | | | | | | | | | | | 6 |
| Adenocarcinoma, Multiple | | | | | | | | X | | | | | | | | | | | | | | | | | 3 |
| Adenoma | | | | | | X | | | | | | | | | | | | | X | | | | | | 2 |
| Fibroadenoma | | | | | | | | | X | X | | | X | | X | | | X | X | | | | X | | 14 |
| Fibroadenoma, Multiple | | X | | X | X | X | X | | | | X | X | | X | X | | | | | | | X | | X | 21 |
| Hemangiosarcoma | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Skin | + | + | + | | | | | | | | | | | | + | | | | | | + | + | | | 13 |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle | + | | | | | | | | | | | | | | | | | | | | | | | | 1 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|
| | 04 | 07 | 04 | 06 | 07 | 07 | 07 | 06 | 04 | 06 | 05 | 06 | 06 | 05 | 06 | 04 | 04 | 06 | 07 | 04 | 07 | 07 | 05 | 05 | | 05 | |
| ANIMAL ID | 06 | 02 | 07 | 04 | 02 | 02 | 02 | 03 | 09 | 01 | 09 | 07 | 08 | 06 | 00 | 08 | 03 | 09 | 03 | 02 | 05 | 02 | 02 | 08 | 05 | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Nerve Trigeminal | + | | | | | | | | + | | | | | | + | | | + | + | | | | | | 11 | | |
| Peripheral Nerve, Sciatic | + | | | | | | | | + | | | | | | + | | | + | + | | | | | | 11 | | |
| Peripheral Nerve, Tibial | + | | | | | | | | + | | | | | | + | | | + | + | | | | | | 11 | | |
| Spinal Cord, Cervical | + | | | | | | | | A | | | | | | + | | | + | + | | | | | | 10 | | |
| Spinal Cord, Lumbar | + | | | | | | | | A | | | | | | + | | | + | + | | | | | | 10 | | |
| Spinal Cord, Thoracic | + | | | | | | | | A | | | | | | + | | | + | + | | | | | | 10 | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | | | + | + | + | 44 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Nose | + | + | + | + | | | | | + | A | + | + | + | + | + | + | + | + | + | + | | | + | + | + | 38 | |
| Lymphoma Malignant | X | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Osteosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Trachea | + | + | + | + | | | | | + | A | + | + | + | + | + | + | + | + | + | + | | | + | + | + | 37 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | | | | | + | | | | | + | | | | | | | | | | 2 | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | + | | | | | + | | | 2 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

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 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| | 0686 | 0543 | 0557 | 0763 | 0764 | 0728 | 0556 | 0551 | 0553 | 0558 | 0493 | 0649 | 0762 | 0668 | 0663 | 0772 | 0773 | 0772 | 0723 | 0566 | 0663 | 0577 | 0557 | 0772 | |
| ANIMAL ID | 00891 | 00890 | 00011 | 00012 | 00011 | 00012 | 00022 | 00023 | 00033 | 00035 | 00055 | 00066 | 00077 | 00088 | 00099 | 00100 | 00101 | 00102 | 00103 | 00104 | 00105 | 00106 | 00107 | 00108 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex
Adenoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adrenal Medulla
Pheochromocytoma Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pituitary Gland
Lymphoma Malignant
Pars Distalis, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thyroid Gland
C-cell, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

GENERAL BODY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0686 | 0543 | 0557 | 0763 | 0674 | 0778 | 0556 | 0551 | 0553 | 0555 | 0449 | 0663 | 0777 | 0666 | 0668 | 0772 | 0777 | 0777 | 0556 | 0666 | 0663 | 0557 | 0557 | 0772 | | |
| | 0086 | 0083 | 0097 | 0003 | 0004 | 0008 | 0006 | 0001 | 0003 | 0008 | 0004 | 0009 | 0003 | 0002 | 0006 | 0008 | 0003 | 0007 | 0006 | 0007 | 0001 | 0000 | 0009 | 0000 | 0081 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|
| Lymph Node, Mandibular
Histiocytic Sarcoma
Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric
Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen
Adenocarcinoma, Metastatic, Uterus
Histiocytic Sarcoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Thymus
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Mammary Gland
Adenocarcinoma
Adenocarcinoma, Multiple
Adenoma
Adenosquamous Carcinoma
Fibroadenoma
Fibroadenoma, Multiple | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Skin
Squamous Cell Papilloma
Subcutaneous Tissue, Fibrosarcoma | | + | + | + | | | | | + | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|---|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|--|----------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | | 0686 | 0543 | 0527 | 0763 | 0674 | 0758 | 0551 | 0553 | 0555 | 0448 | 0667 | 0776 | 0666 | 0777 | 0777 | 0556 | 0666 | 0663 | 0557 | 0557 | 0777 | 0770 | 0770 | | | |
| ANIMAL ID | | 00891 | 00890 | 00001 | 00001 | 00002 | 00002 | 00002 | 00003 | 00003 | 00003 | 00003 | 00003 | 00003 | 00003 | 00003 | 00005 | 00005 | 00005 | 00005 | 00005 | 00009 | 00009 | 00009 | | | |

Histiocytic Sarcoma
Lymphoma Malignant

X

Nose

+ +

Trachea

+ +

SPECIAL SENSES SYSTEM

Zymbal's Gland
Carcinoma

+
X

URINARY SYSTEM

Kidney
Adenocarcinoma, Metastatic, Uterus
Lymphoma Malignant

+

X

Urinary Bladder

+

SYSTEMIC LESIONS

Multiple Organ
Histiocytic Sarcoma
Lymphoma Malignant

+

X

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0575 | 0486 | 0611 | 0518 | 0074 | 0772 | 0016 | 0772 | 0512 | 0772 | 0418 | 0566 | 0665 | 0552 | 0771 | 0772 | 0772 | 0772 | 0682 | 0682 | |
| ANIMAL ID | 05232 | 05441 | 05542 | 05551 | 05722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | |

| | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| Blood Vessel
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1 |
| Heart
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Adrenal Cortex
Adenoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
2
1 |
| Adrenal Medulla
Pheochromocytoma Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
2 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Pituitary Gland
Lymphoma Malignant
Pars Distalis, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1
21 |
| Thyroid Gland
C-cell, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
2 |

GENERAL BODY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------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| | 0575 | 0486 | 0611 | 0518 | 0604 | 0707 | 0707 | 0512 | 0706 | 0706 | 0418 | 0504 | 0606 | 0604 | 0505 | 0702 | 0701 | 0704 | 0702 | 0608 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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0653 | 0654 | 0655 | 0656 | 0657 | 0658 | 0659 | 0660 | 0661 | 0662 | 0663 | 0664 | 0665 | 0666 | 0667 | 0668 | 0669 | 0670 | 0671 | 0672 | 0673 | 0674 | 0675 | 0676 | 0677 | 0678 | 0679 | 0680 | 0681 | 0682 | 0683 | 0684 | 0685 | 0686 | 0687 | 0688 | 0689 | 0690 | 0691 | 0692 | 0693 | 0694 | 0695 | 0696 | 0697 | 0698 | 0699 | 0700 | 0701 | 0702 | 0703 | 0704 | 0705 | 0706 | 0707 | 0708 | 0709 | 0710 | 0711 | 0712 | 0713 | 0714 | 0715 | 0716 | 0717 | 0718 | 0719 | 0720 | 0721 | 0722 | 0723 | 0724 | 0725 | 0726 | 0727 | 0728 | 0729 | 0730 | 0731 | 0732 | 0733 | 0734 | 0735 | 0736 | 0737 | 0738 | 0739 | 0740 | 0741 | 0742 | 0743 | 0744 | 0745 | 0746 | 0747 | 0748 | 0749 | 0750 | 0751 | 0752 | 0753 | 0754 | 0755 | 0756 | 0757 | 0758 | 0759 | 0760 | 0761 | 0762 | 0763 | 0764 | 0765 | 0766 | 0767 | 0768 | 0769 | 0770 | 0771 | 0772 | 0773 | 0774 | 0775 | 0776 | 0777 | 0778 | 0779 | 0780 | 0781 | 0782 | 0783 | 0784 | 0785 | 0786 | 0787 | 0788 | 0789 | 0790 | 0791 | 0792 | 0793 | 0794 | 0795 | 0796 | 0797 | 0798 | 0799 | 0800 | 0801 | 0802 | 0803 | 0804 | 0805 | 0806 | 0807 | 0808 | 0809 | 0810 | 0811 | 0812 | 0813 | 0814 | 0815 | 0816 | 0817 | 0818 | 0819 | 0820 | 0821 | 0822 | 0823 | 0824 | 0825 | 0826 | 0827 | 0828 | 0829 | 0830 | 0831 | 0832 | 0833 | 0834 | 0835 | 0836 | 0837 | 0838 | 0839 | 0840 | 0841 | 0842 | 0843 | 0844 | 0845 | 0846 | 0847 | 0848 | 0849 | 0850 | 0851 | 0852 | 0853 | 0854 | 0855 | 0856 | 0857 | 0858 | 0859 | 0860 | 0861 | 0862 | 0863 | 0864 | 0865 | 0866 | 0867 | 0868 | 0869 | 0870 | 0871 | 0872 | 0873 | 0874 | 0875 | 0876 | 0877 | 0878 | 0879 | 0880 | 0881 | 0882 | 0883 | 0884 | 0885 | 0886 | 0887 | 0888 | 0889 | 0890 | 0891 | 0892 | 0893 | 0894 | 0895 | 0896 | 0897 | 0898 | 0899 | 0900 | 0901 | 0902 | 0903 | 0904 | 0905 | 0906 | 0907 | 0908 | 0909 | 0910 | 0911 | 0912 | 0913 | 0914 | 0915 | 0916 | 0917 | 0918 | 0919 | 0920 | 0921 | 0922 | 0923 | 0924 | 0925 | 0926 | 0927 | 0928 | 0929 | 0930 | 0931 | 0932 | 0933 | 0934 | 0935 | 0936 | 0937 | 0938 | 0939 | 0940 | 0941 | 0942 | 0943 | 0944 | 0945 | 0946 | 0947 | 0948 | 0949 | 0950 | 0951 | 0952 | 0953 | 0954 | 0955 | 0956 | 0957 | 0958 | 0959 | 0960 | 0961 | 0962 | 0963 | 0964 | 0965 | 0966 | 0967 | 0968 | 0969 | 0970 | 0971 | 0972 | 0973 | 0974 | 0975 | 0976 | 0977 | 0978 | 0979 | 0980 | 0981 | 0982 | 0983 | 0984 | 0985 | 0986 | 0987 | 0988 | 0989 | 0990 | 0991 | 0992 | 0993 | 0994 | 0995 | 0996 | 0997 | 0998 | 0999 | 1000 | 1001 | 1002 | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 | 1010 | 1011 | 1012 | 1013 | 1014 | 1015 | 1016 | 1017 | 1018 | 1019 | 1020 | 1021 | 1022 | 1023 | 1024 | 1025 | 1026 | 1027 | 1028 | 1029 | 1030 | 1031 | 1032 | 1033 | 1034 | 1035 | 1036 | 1037 | 1038 | 1039 | 1040 | 1041 | 1042 | 1043 | 1044 | 1045 | 1046 | 1047 | 1048 | 1049 | 1050 | 1051 | 1052 | 1053 | 1054 | 1055 | 1056 | 1057 | 1058 | 1059 | 1060 | 1061 | 1062 | 1063 | 1064 | 1065 | 1066 | 1067 | 1068 | 1069 | 1070 | 1071 | 1072 | 1073 | 1074 | 1075 | 1076 | 1077 | 1078 | 1079 | 1080 | 1081 | 1082 | 1083 | 1084 | 1085 | 1086 | 1087 | 1088 | 1089 | 1090 | 1091 | 1092 | 1093 | 1094 | 1095 | 1096 | 1097 | 1098 | 1099 | 1100 | 1101 | 1102 | 1103 | 1104 | 1105 | 1106 | 1107 | 1108 | 1109 | 1110 | 1111 | 1112 | 1113 | 1114 | 1115 | 1116 | 1117 | 1118 | 1119 | 1120 | 1121 | 1122 | 1123 | 1124 | 1125 | 1126 | 1127 | 1128 | 1129 | 1130 | 1131 | 1132 | 1133 | 1134 | 1135 | 1136 | 1137 | 1138 | 1139 | 1140 | 1141 | 1142 | 1143 | 1144 | 1145 | 1146 | 1147 | 1148 | 1149 | 1150 | 1151 | 1152 | 1153 | 1154 | 1155 | 1156 | 1157 | 1158 | 1159 | 1160 | 1161 | 1162 | 1163 | 1164 | 1165 | 1166 | 1167 | 1168 | 1169 | 1170 | 1171 | 1172 | 1173 | 1174 | 1175 | 1176 | 1177 | 1178 | 1179 | 1180 | 1181 | 1182 | 1183 | 1184 | 1185 | 1186 | 1187 | 1188 | 1189 | 1190 | 1191 | 1192 | 1193 | 1194 | 1195 | 1196 | 1197 | 1198 | 1199 | 1200 | 1201 | 1202 | 1203 | 1204 | 1205 | 1206 | 1207 | 1208 | 1209 | 1210 | 1211 | 1212 | 1213 | 1214 | 1215 | 1216 | 1217 | 1218 | 1219 | 1220 | 1221 | 1222 | 1223 | 1224 | 1225 | 1226 | 1227 | 1228 | 1229 | 1230 | 1231 | 1232 | 1233 | 1234 | 1235 | 1236 | 1237 | 1238 | 1239 | 1240 | 1241 | 1242 | 1243 | 1244 | 1245 | 1246 | 1247 | 1248 | 1249 | 1250 | 1251 | 1252 | 1253 | 1254 | 1255 | 1256 | 1257 | 1258 | 1259 | 1260 | 1261 | 1262 | 1263 | 1264 | 1265 | 1266 | 1267 | 1268 | 1269 | 1270 | 1271 | 1272 | 1273 | 1274 | 1275 | 1276 | 1277 | 1278 | 1279 | 1280 | 1281 | 1282 | 1283 | 1284 | 1285 | 1286 | 1287 | 1288 | 1289 | 1290 | 1291 | 1292 | 1293 | 1294 | 1295 | 1296 | 1297 | 1298 | 1299 | 1300 | 1301 | 1302 | 1303 | 1304 | 1305 | 1306 | 1307 | 1308 | 1309 | 1310 | 1311 | 1312 | 1313 | 1314 | 1315 | 1316 | 1317 | 1318 | 1319 | 1320 | 1321 | 1322 | 1323 | 1324 | 1325 | 1326 | 1327 | 1328 | 1329 | 1330 | 1331 | 1332 | 1333 | 1334 | 1335 | 1336 | 1337 | 1338 | 1339 | 1340 | 1341 | 1342 | 1343 | 1344 | 1345 | 1346 | 1347 | 1348 | 1349 | 1350 | 1351 | 1352 | 1353 | 1354 | 1355 | 1356 | 1357 | 1358 | 1359 | 1360 | 1361 | 1362 | 1363 | 1364 | 1365 | 1366 | 1367 | 1368 | 1369 | 1370 | 1371 | 1372 | 1373 | 1374 | 1375 | 1376 | 1377 | 1378 | 1379 | 1380 | 1381 | 1382 | 1383 | 1384 | 1385 | 1386 | 1387 | 1388 | 1389 | 1390 | 1391 | 1392 | 1393 | 1394 | 1395 | 1396 | 1397 | 1398 | 1399 | 1400 | 1401 | 1402 | 1403 | 1404 | 1405 | 1406 | 1407 | 1408 | 1409 | 1410 | 1411 | 1412 | 1413 | 1414 | 1415 | 1416 | 1417 | 1418 | 1419 | 1420 | 1421 | 1422 | 1423 | 1424 | 1425 | 1426 | 1427 | 1428 | 1429 | 1430 | 1431 | 1432 | 1433 | 1434 | 1435 | 1436 | 1437 | 1438 | 1439 | 1440 | 1441 | 1442 | 1443 | 1444 | 1445 | 1446 | 1447 | 1448 | 1449 | 1450 | 1451 | 1452 | 1453 | 1454 | 1455 | 1456 | 1457 | 1458 | 1459 | 1460 | 1461 | 1462 | 1463 | 1464 | 1465 | 1466 | 1467 | 1468 | 1469 | 1470 | 1471 | 1472 | 1473 | 1474 | 1475 | 1476 | 1477 | 1478 | 1479 | 1480 | 1481 | 1482 | 1483 | 1484 | 1485 | 1486 | 1487 | 1488 | 1489 | 1490 | 1491 | 1492 | 1493 | 1494 | 1495 | 1496 | 1497 | 1498 | 1499 | 1500 | 1501 | 1502 | 1503 | 1504 | 1505 | 1506 | 1507 | 1508 | 1509 | 1510 | 1511 | 1512 | 1513 | 1514 | 1515 | 1516 | 1517 | 1518 | 1519 | 1520 | 1521 | 1522 | 1523 | 1524 | 1525 | 1526 | 1527 | 1528 | 1529 | 1530 | 1531 | 1532 | 1533 | 1534 | 1535 | 1536 | 1537 | 1538 | 1539 | 1540 | 1541 | 1542 | 1543 | 1544 | 1545 | 1546 | 1547 | 1548 | 1549 | 1550 | 1551 | 1552 | 1553 | 1554 | 1555 | 1556 | 1557 | 1558 | 1559 | 1560 | 1561 | 1562 | 1563 | 1564 | 1565 | 1566 | 1567 | 1568 | 1569 | 1570 | 1571 | 1572 | 1573 | 1574 | 1575 | 1576 | 1577 | 1578 | 1579 | 1580 | 1581 | 1582 | 1583 | 1584 | 1585 | 1586 | 1587 | 1588 | 1589 | 1590 | 1591 | 1592 | 1593 | 1594 | 1595 | 1596 | 1597 | 1598 | 1599 | 1600 | 1601 | 1602 | 1603 | 1604 | 1605 | 1606 | 1607 | 1608 | 1609 | 1610 | 1611 | 1612 | 1613 | 1614 | 1615 | 1616 | 1617 | 1618 | 1619 | 1620 | 1621 | 1622 | 1623 | 1624 | 1625 | 1626 | 1627 | 1628 | 1629 | 1630 | 1631 | 1632 | 1633 | 1634 | 1635 | 1636 | 1637 | 1638 | 1639 | 1640 | 1641 | 1642 | 1643 | 1644 | 1645 | 1646 | 1647 | 1648 | 1649 | 1650 | 1651 | 1652 | 1653 | 1654 | 1655 | 1656 | 1657 | 1658 | 1659 | 1660 | 1661 | 1662 | 1663 | 1664 | 1665 | 1666 | 1667 | 1668 | 1669 | 1670 | 1671 | 1672 | 1673 | 1674 | 1675 | 1676 | 1677 | 1678 | 1679 | 1680 | 1681 | 1682 | 1683 | 1684 | 1685 | 1686 | 1687 | 1688 | 1689 |

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0575 | 0486 | 0611 | 0518 | 0064 | 0778 | 0772 | 0506 | 0776 | 0770 | 0468 | 0554 | 0665 | 0655 | 0720 | 0771 | 0774 | 0728 | 0662 | | | | |
| ANIMAL ID | 05232 | 05244 | 05244 | 05255 | 05266 | 07271 | 07277 | 07277 | 07277 | 07277 | 07277 | 07277 | 07277 | 07277 | 07277 | 09233 | 09233 | 09211 | 09211 | 09211 | 09211 | 09211 | 09222 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Adenocarcinoma, Metastatic, Uterus | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Nerve Trigeminal | | | + | | + | | + | | | | | | | | | | | | | | | | | 6 |
| Peripheral Nerve, Sciatic | | | + | | + | | + | | | | | | | | | | | | | | | | | 6 |
| Peripheral Nerve, Tibial | | | + | | + | | + | | | | | | | | | | | | | | | | | 6 |
| Spinal Cord, Cervical | | | + | | + | | + | | | | | | | | | | | | | | | | | 6 |
| Spinal Cord, Lumbar | | | + | | + | | + | | | | | | | | | | | | | | | | | 6 |
| Spinal Cord, Thoracic | | | + | | + | | + | | | | | | | | | | | | | | | | | 6 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 42 | |
| Adenocarcinoma, Metastatic, Uterus | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|---|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|
| | 055 | 057 | 058 | 061 | 065 | 070 | 077 | 077 | 075 | 077 | 077 | 074 | 075 | 066 | 066 | 055 | 055 | 077 | 077 | 072 | | 077 | 066 | 068 | 068 | 062 |
| ANIMAL ID | 052 | 053 | 054 | 055 | 056 | 057 | 057 | 057 | 057 | 057 | 057 | 057 | 057 | 057 | 057 | 059 | 059 | 059 | 059 | 059 | 059 | 059 | 059 | 059 | 059 | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Nose | + | + | + | + | + | + | | + | + | | + | + | + | + | + | + | + | + | | | | | | | 38 | |
| Trachea | + | + | + | + | + | + | | + | + | | + | + | + | + | + | + | + | + | | | | | | | 38 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Adenocarcinoma, Metastatic, Uterus | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | | 0673 | 0659 | 0686 | 0551 | 0558 | 0479 | 0772 | 0772 | 0775 | 0461 | 0664 | 0774 | 0478 | 0746 | 0451 | 0448 | 0548 | 0450 | 0556 | 0551 | 0725 | 0523 | 0567 | 0656 | females
(cont...) |
|--------------------------------------|--|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | | 0733 | 0599 | 0886 | 0918 | 0918 | 0299 | 0229 | 0225 | 0915 | 0615 | 0673 | 0428 | 0725 | 0461 | 0512 | 0440 | 0885 | 0880 | 0506 | 0551 | 0725 | 0523 | 0670 | | |
| F1 0.05 EE2 F | | 0100 | 0100 | 0100 | 0100 | 0100 | 0303 | 0303 | 0303 | 0303 | 0303 | 0505 | 0505 | 0505 | 0505 | 0505 | 0707 | 0707 | 0707 | 0707 | 0909 | 0909 | 0909 | 0909 | | |
| ANIMAL ID | | 0311 | 0332 | 0441 | 0442 | 0551 | 0552 | 0991 | 0992 | 0001 | 0001 | 0102 | 0101 | 0105 | 0106 | 0102 | 0101 | 0202 | 0201 | 0202 | 0201 | 0707 | 0708 | 0701 | 0702 | |

Pheochromocytoma Benign

X

Islets, Pancreatic
Adenoma

+
 X

Parathyroid Gland

+ +

Pituitary Gland
Pars Distalis, Adenoma

+
 X

Thyroid Gland

+ +

GENERAL BODY SYSTEM

Tissue NOS
Fibrosarcoma, Metastatic, Skin
Sarcoma

+
 X

GENITAL SYSTEM

Clitoral Gland

+

Ovary
Sarcoma, Metastatic, Uncertain Primary Site
Tubulostromal Adenoma

+
 X

Oviduct

+ +

Uterus
Polyp Stromal

+
 X

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|
| | 0673 | 0675 | 0678 | 0559 | 0551 | 0492 | 0497 | 0492 | 0492 | 0495 | 0491 | 0495 | 0493 | 0499 | 0496 | 0491 | 0492 | 0494 | 0495 | 0494 | 0495 | 0495 | 0495 | 0497 | | | 0495 |
| | 010 | 011 | 011 | 011 | 011 | 013 | 013 | 013 | 013 | 013 | 013 | 015 | 015 | 015 | 015 | 015 | 015 | 015 | 017 | 017 | 017 | 017 | 017 | 019 | 019 | 019 | 019 |
| | 003 | 003 | 004 | 004 | 005 | 005 | 009 | 009 | 000 | 001 | 002 | 002 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 003 | 008 | 008 | 008 | 008 |
| | 011 | 012 | 011 | 012 | 011 | 012 | 011 | 012 | 011 | 012 | 012 | 011 | 012 | 012 | 011 | 012 | 012 | 011 | 012 | 012 | 011 | 012 | 011 | 012 | 011 | 012 | 012 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Nerve Trigeminal | | | + | | | | | | | | | | | | | | | | | + | | | | | + | + | |
| Peripheral Nerve, Sciatic | | | + | | | | | | | | | | | | | | | | | | + | | | | | + | + |
| Peripheral Nerve, Tibial | | | + | | | | | | | | | | | | | | | | | | + | | | | | + | + |
| Spinal Cord, Cervical | | | + | | | | | | | | | | | | | | | | | | + | | | | | + | + |
| Spinal Cord, Lumbar | | | + | | | | | | | | | | | | | | | | | | + | | | | | + | + |
| Spinal Cord, Thoracic | | | + | | | | | | | | | | | | | | | | | | + | | | | | + | + |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|--|--|--|--|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Lung | + | + | + | + | + | + | | | | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | |
| Sarcoma, Metastatic, Uncertain Primary Site | | | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | + | + | + | + | + | + | | | | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | |
| Trachea | + | + | + | + | + | + | | | | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | 063 | 069 | 066 | 053 | 058 | 048 | 079 | 072 | 072 | 075 | 041 | 065 | 063 | 079 | 046 | 075 | 041 | 052 | 044 | 058 | 045 | 057 | 052 | 066 | 067 | females
(cont...) |
| | ANIMAL ID | 013 | 013 | 014 | 011 | 011 | 013 | 013 | 013 | 013 | 013 | 013 | 015 | 015 | 015 | 015 | 015 | 017 | 017 | 017 | 017 | 017 | 017 | 019 | 019 | 019 | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Sarcoma, Metastatic, Uncertain Primary Site | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | | + |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | 0 | |
| | | 7 | |
| | | 2 | |
| | | 9 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 2 | |
| | | 2 | * TOTALS |

ALIMENTARY SYSTEM

| | | |
|---|---|----|
| Esophagus | | 19 |
| Intestine Large, Colon | | 19 |
| Intestine Small, Ileum | | 19 |
| Liver | + | 26 |
| Sarcoma, Metastatic, Uncertain Primary Site | | 1 |
| Mesentery | | 2 |
| Sarcoma, Metastatic, Uncertain Primary Site | | 1 |
| Pancreas | + | 26 |
| Stomach, Forestomach | | 19 |
| Stomach, Glandular | | 19 |

CARDIOVASCULAR SYSTEM

| | | |
|--------------|---|----|
| Blood Vessel | + | 26 |
| Heart | + | 26 |

ENDOCRINE SYSTEM

| | | |
|-----------------|---|----|
| Adrenal Cortex | + | 26 |
| Adrenal Medulla | + | 26 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
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Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | | DAY ON TEST | ANIMAL ID | * TOTALS |
|---|---|-------------|-----------|----------|
| | | 0 | 0 | |
| | | 7 | 9 | |
| | | 2 | 2 | |
| | | 9 | 2 | |
| | | | 2 | |
| | | | 2 | |
| Vagina | + | | | 26 |
| HEMATOPOIETIC SYSTEM | | | | |
| Bone Marrow | + | | | 26 |
| Lymph Node | | | | 4 |
| Lymph Node, Mesenteric | | | | 1 |
| Spleen | + | | | 26 |
| Thymus | + | | | 26 |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland | + | | | 26 |
| Adenocarcinoma | | | | 2 |
| Fibroadenoma | | | | 7 |
| Fibroadenoma, Multiple | X | | | 11 |
| Sarcoma | | | | 1 |
| Skin | + | | | 9 |
| Subcutaneous Tissue, Fibrosarcoma | | | | 1 |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone, Femur | + | | | 26 |
| NERVOUS SYSTEM | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | | DAY ON TEST | |
|---|---|-------------|-----------------|
| | | ANIMAL ID | |
| | | 0 | |
| | | 7 | |
| | | 2 | |
| | | 9 | |
| | | 0 | |
| | | 9 | |
| | | 2 | |
| | | 2 | |
| | | 2 | |
| | | | * TOTALS |
| Brain, Brain Stem | + | | 26 |
| Brain, Cerebellum | + | | 26 |
| Brain, Cerebrum | + | | 26 |
| Nerve Trigeminal | + | | 5 |
| Peripheral Nerve, Sciatic | + | | 5 |
| Peripheral Nerve, Tibial | + | | 5 |
| Spinal Cord, Cervical | + | | 5 |
| Spinal Cord, Lumbar | + | | 5 |
| Spinal Cord, Thoracic | + | | 5 |
| RESPIRATORY SYSTEM | | | |
| Lung | | | 21 |
| Sarcoma, Metastatic, Uncertain Primary Site | | | 1 |
| Nose | | | 19 |
| Trachea | | | 19 |
| SPECIAL SENSES SYSTEM | | | |
| Zymbal's Gland | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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Experiment Number: 10034 - 04
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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | 0 | |
| | | 7 | |
| | | 2 | |
| | | 9 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 2 | |
| | | | * TOTALS |

URINARY SYSTEM

| | | |
|---|---|----|
| Kidney | + | 26 |
| Sarcoma, Metastatic, Uncertain Primary Site | | 1 |
| Urinary Bladder | | 1 |

SYSTEMIC LESIONS

| | | |
|----------------|---|----|
| Multiple Organ | + | 26 |
|----------------|---|----|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
| | 0
7
1
2 | 0
6
3
2 | 0
5
3
0 | 0
5
9
0 | 0
4
8
9 | 0
5
8
3 | 0
5
2
6 | 0
6
1
7 | 0
7
2
6 | 0
4
6
3 | 0
5
9
8 | 0
5
2
8 | 0
5
3
0 | 0
6
3
8 | 0
5
9
8 | 0
7
5
3 | 0
7
1
7 | 0
4
8
7 | 0
5
7
2 | 0
5
4
1 | | | 0
7
2
7 | 0
6
7
8 |
| | 0
1
1
5
1 | 0
1
1
5
2 | 0
1
1
6
1 | 0
1
1
6
2 | 0
1
1
7
1 | 0
1
1
7
2 | 0
3
3
1
1 | 0
3
3
1
2 | 0
3
3
2
2 | 0
3
3
2
1 | 0
3
3
3
2 | 0
3
3
7
3 | 0
5
4
4
1 | 0
5
4
4
2 | 0
5
4
8
1 | 0
5
4
9
2 | 0
7
4
5
1 | 0
7
4
5
2 | 0
7
4
6
1 | 0
7
4
6
2 | 0
9
2
9
1 | 0
9
2
9
2 | 0
9
2
9
0 | |

Heart +

ENDOCRINE SYSTEM

Adrenal Cortex Adenoma + + + + + + + + + + + X + + + + + + + + + + + + + +

Adrenal Medulla Pheochromocytoma Benign + + + + + + + + + + + X + + + + + + + + + + + + + +

Islets, Pancreatic +

Parathyroid Gland +

Pituitary Gland Pars Distalis, Adenoma +
 Pars Distalis, Carcinoma X

Thyroid Gland C-cell, Adenoma + + + + + + + + + + + + A + + + + + + + + + + + + + +

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland Adenoma + + + + X + + X

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 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|
| | 0712 | 0632 | 0530 | 0550 | 0489 | 0583 | 0556 | 0627 | 0712 | 0463 | 0558 | 0553 | 0663 | 0592 | 0333 | 0698 | 0758 | 0573 | 0770 | 0447 | 0572 | 0554 | 0721 | 0678 | | | 0361 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 011151 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 011151 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Polyp Stromal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cervix, Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node | | | + | | + | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thymoma Malignant, Metastatic, Thymus | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Epithelial Cell, Thymoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenocarcinoma | X | | | | X | X | | | | X | | | | | | | | | X | | | | | | |
| Adenocarcinoma, Multiple | | | X | | | | | | | X | | | | | | | | | X | | | | X | | |
| Fibroadenoma | | | | X | | X | X | X | X | | | | | X | | | | X | X | | | | | X | X |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--------------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST | | 7 | 6 | 5 | 5 | 4 | 5 | 5 | 6 | 7 | 4 | 5 | 5 | 5 | 6 | 5 | 7 | 5 | 7 | 7 | 4 | 5 | 5 | 7 | 6 | 3 |
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | | 1 | 3 | 3 | 9 | 8 | 8 | 2 | 1 | 2 | 6 | 9 | 2 | 3 | 3 | 9 | 2 | 5 | 1 | 3 | 8 | 7 | 4 | 2 | 7 | 6 |
| F1 0.50 EE2 F | | 2 | 2 | 0 | 0 | 9 | 3 | 6 | 7 | 6 | 3 | 8 | 8 | 0 | 8 | 8 | 3 | 7 | 0 | 7 | 2 | 1 | 7 | 8 | 1 | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 3 | 3 |
| | | 5 | 5 | 6 | 6 | 7 | 7 | 1 | 1 | 2 | 2 | 3 | 7 | 7 | 8 | 8 | 9 | 9 | 5 | 5 | 6 | 6 | 9 | 9 | 0 | 0 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma, Multiple | | X | | | | | | | | X | | | | X | | | | X | | | | | | | | |
| Skin | | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rhabdomyosarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

females
(cont...)

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | | |
| | | 7 | 6 | 5 | 5 | 4 | 5 | 5 | 6 | 7 | 4 | 5 | 5 | 5 | 6 | 5 | 7 | 5 | 7 | 7 | 4 | | 5 | 5 | 7 | 6 |
| | | 1 | 3 | 3 | 9 | 8 | 8 | 2 | 1 | 2 | 6 | 9 | 2 | 3 | 3 | 9 | 2 | 5 | 1 | 3 | 8 | 7 | 4 | 7 | 6 | 3 |
| | | 2 | 2 | 0 | 0 | 9 | 3 | 6 | 7 | 6 | 3 | 8 | 8 | 0 | 8 | 8 | 3 | 7 | 0 | 7 | 2 | 1 | 7 | 8 | 1 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 3 | |
| | | 5 | 5 | 6 | 6 | 7 | 7 | 1 | 1 | 2 | 2 | 3 | 7 | 7 | 8 | 8 | 9 | 9 | 5 | 5 | 6 | 6 | 9 | 9 | 0 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

Spinal Cord, Thoracic

+ +

RESPIRATORY SYSTEM

Lung

+ +

Nose

+ +

Trachea

+ + A + + + + + + + + + A + + + + + + + + + + + + + +

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney

+ +

SYSTEMIC LESIONS

Multiple Organ

+ +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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 Lab: NCTR

| | | | |
|---|-------------|-----------------------|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | 0
6
1
1 | |
| | ANIMAL ID | 0
9
3
0
2 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | | |
|---------------------------|---|----|
| Esophagus | + | 22 |
| Intestine Large, Colon | + | 21 |
| Intestine Small, Duodenum | | 1 |
| Intestine Small, Ileum | + | 18 |
| Intestine Small, Jejunum | | 2 |
| Adenocarcinoma | | 1 |
| Liver | + | 26 |
| Hepatocellular Adenoma | X | 1 |
| Mesentery | | 1 |
| Pancreas | + | 26 |
| Stomach, Forestomach | + | 22 |
| Stomach, Glandular | + | 21 |
| Tongue | | 1 |

CARDIOVASCULAR SYSTEM

| | | |
|--------------|---|----|
| Blood Vessel | + | 26 |
|--------------|---|----|

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | | DAY ON TEST | ANIMAL ID | * TOTALS |
|---|---|-------------|-----------|----------|
| | | 0 | | |
| | | 6 | | |
| | | 1 | | |
| | | 1 | | |
| | | 0 | | |
| | | 9 | | |
| | | 3 | | |
| | | 0 | | |
| | | 2 | | |
| Heart | + | | | 26 |
| ENDOCRINE SYSTEM | | | | |
| Adrenal Cortex | + | | | 26 |
| Adenoma | | | | 1 |
| Adrenal Medulla | + | | | 26 |
| Pheochromocytoma Benign | | | | 2 |
| Islets, Pancreatic | + | | | 26 |
| Parathyroid Gland | + | | | 26 |
| Pituitary Gland | + | | | 26 |
| Pars Distalis, Adenoma | | | | 17 |
| Pars Distalis, Carcinoma | X | | | 3 |
| Thyroid Gland | + | | | 25 |
| C-cell, Adenoma | X | | | 2 |
| GENERAL BODY SYSTEM | | | | |
| NONE | | | | |
| GENITAL SYSTEM | | | | |
| Clitoral Gland | | | | 6 |
| Adenoma | | | | 2 |

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 2 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | | DAY ON TEST
0
6
1
1 | ANIMAL ID
0
9
3
0
2 | * TOTALS |
|---|---|---------------------------------|------------------------------------|----------|
| Ovary | + | | | 26 |
| Oviduct | + | | | 26 |
| Uterus | + | | | 26 |
| Polyp Stromal | | | | 1 |
| Cervix, Squamous Cell Carcinoma | | | | 1 |
| Vagina | + | | | 26 |
| HEMATOPOIETIC SYSTEM | | | | |
| Bone Marrow | + | | | 26 |
| Lymph Node | | | | 3 |
| Lymph Node, Mandibular | | | | 1 |
| Spleen | + | | | 26 |
| Thymoma Malignant, Metastatic, Thymus | | | | 1 |
| Thymus | + | | | 26 |
| Epithelial Cell, Thymoma Malignant | | | | 1 |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland | + | | | 26 |
| Adenocarcinoma | X | | | 6 |
| Adenocarcinoma, Multiple | | | | 4 |
| Fibroadenoma | | | | 10 |

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 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | ANIMAL ID | * TOTALS |
|---|-------------|-----------|----------|
| | 0 | | |
| | 6 | | |
| | 1 | | |
| | 1 | | |
| | 0 | | |
| | 9 | | |
| | 3 | | |
| | 0 | | |
| | 2 | | |

Fibroadenoma, Multiple

4

Skin

9

MUSCULOSKELETAL SYSTEM

Bone, Femur

+

26

Skeletal Muscle

3

Rhabdomyosarcoma

1

NERVOUS SYSTEM

Brain, Brain Stem

+

26

Carcinoma, Deep Invasion

X

3

Brain, Cerebellum

+

26

Brain, Cerebrum

+

26

Granular Cell Tumor Benign

1

Nerve Trigeminal

4

Peripheral Nerve, Sciatic

4

Peripheral Nerve, Tibial

4

Spinal Cord, Cervical

4

Spinal Cord, Lumbar

4

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | | DAY ON TEST | ANIMAL ID | |
|---|--|-------------|-----------|-----------------|
| | | 0 | | |
| | | 6 | | |
| | | 1 | | |
| | | 1 | | |
| | | 0 | | |
| | | 9 | | |
| | | 3 | | |
| | | 0 | | |
| | | 2 | | |
| | | | | * TOTALS |
| Spinal Cord, Thoracic | | | | 4 |
| RESPIRATORY SYSTEM | | | | |
| Lung | | | | 22 |
| Nose | | | | 22 |
| Trachea | | | | 20 |
| SPECIAL SENSES SYSTEM | | | | |
| NONE | | | | |
| URINARY SYSTEM | | | | |
| Kidney | | | | 26 |
| SYSTEMIC LESIONS | | | | |
| Multiple Organ | | | | 26 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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Experiment Number: 10034 - 04
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|------|
| | 0386 | 0603 | 0509 | 0502 | 0500 | 0605 | 0409 | 0702 | 0508 | 0702 | 0607 | 0602 | 0606 | 0501 | 0507 | 0700 | 0409 | 0406 | 0700 | 0603 | 0603 | 0500 | 0608 | 0703 | | | 0605 | 0603 | 0500 |
| | 01291 | 0112 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0333 | 0333 | 0333 | 0333 | 0333 | 0444 | 0444 | 0444 | 0444 | 0444 | 0555 | 0555 | 0555 | 0555 | 0555 | 0555 | 0555 | 0555 | 0666 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Oviduct | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Uterus | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Polyp Stromal | | | | X | | | | | | | | X | | | | | | | | | | | | | | | | |
| Endometrium, Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymph Node | | + | | | | + | | | | | | + | | + | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | + | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Spleen | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thymus | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thymoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | X |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenocarcinoma | | | | | | | | | | | | X | | | | | | | | | | | | | | | | X |
| Adenocarcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibroadenoma | X | X | | | | | X | | X | | | | | | X | | X | X | | | | | | | | | X | X |
| Fibroadenoma, Multiple | | | X | X | X | X | | X | | | | X | X | X | | | | | | X | X | X | | | X | X | | X |
| Fibroma | | | | | | | | | X | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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 Bisphenol A
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 2 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0652 | 0730 | 0730 | 0728 | 0571 | 0553 | 0728 | 0268 | 0544 | 0774 | 0774 | 0774 | 0554 | 0554 | 0734 | 0534 | 0720 | 0468 | 0727 | 0523 | 0625 | 0715 | 0729 | 0680 | |
| ANIMAL ID | 05632 | 05641 | 05642 | 05651 | 05652 | 05671 | 05672 | 05677 | 05678 | 05679 | 05681 | 05682 | 05691 | 05692 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 36 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 49 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 38 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Esophagus | + | | | | + | + | | | + | + | + | + | | | + | + | + | + | + | + | | | + | | 38 |
| Intestine Large, Colon | + | | | | + | + | | | + | + | + | + | | | + | + | + | + | + | + | | | + | | 38 |
| Intestine Small, Ileum | + | | | | + | A | | | + | + | + | + | | | + | + | + | + | + | + | | | + | | 36 |
| Intestine Small, Jejunum | | | | | | | | | + | | | | | | | | | | | | | | | | 1 |
| Adenocarcinoma | | | | | | | | | X | | | | | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Stomach, Forestomach | + | | | | + | + | | | + | + | + | + | | | + | + | + | + | + | + | | | + | | 38 |
| Stomach, Glandular | + | | | | + | + | | | + | + | + | + | | | + | + | + | + | + | + | | | + | | 38 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Schwannoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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 Bisphenol A
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--|
| | 0625 | 0730 | 0730 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | 0772 | | |
| ANIMAL ID | 05632 | 05641 | 05642 | 05651 | 05652 | 05671 | 05672 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Polyp Stromal | | | | X | | | | | | | | | | X | | | X | | X | | | | | | 7 | |
| Endometrium, Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Lymph Node | | | | + | | | | + | | | | | | | | | | | | | | + | + | | 9 | |
| Lymph Node, Mandibular | | | | | | | | + | | | | | | | | | + | | | | | | | | 4 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Thymoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Adenocarcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | X | | 1 | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Fibroadenoma | X | | | | X | | | | | X | | | | | | | | X | | | | | X | 14 | | |
| Fibroadenoma, Multiple | | X | X | | X | | | X | | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | 29 | |
| Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
7
2
7 | 0
6
2
5 | 0
3
4
0 | 0
7
2
2 | 0
7
2
8 | 0
5
6
8 | 0
6
5
2 | 0
5
9
3 | 0
5
8
3 | 0
7
2
7 | 0
3
9
8 | 0
6
4
2 | 0
5
6
4 | 0
5
6
4 | 0
7
2
6 | 0
7
0
6 | 0
5
3
8 | 0
7
0
4 | 0
6
2
3 | 0
7
2
6 | | | 0
4
9
9 | 0
7
3
0 |
| | 0
1
4
5
1 | 0
1
4
5
2 | 0
1
4
6
1 | 0
1
4
6
2 | 0
1
4
7
1 | 0
1
4
8
2 | 0
1
4
8
1 | 0
1
4
9
2 | 0
1
4
9
1 | 0
1
3
9
1 | 0
1
3
9
2 | 0
1
3
6
1 | 0
1
3
6
2 | 0
1
3
6
3 | 0
1
3
6
4 | 0
1
3
6
5 | 0
1
3
6
6 | 0
1
3
6
7 | 0
1
3
6
8 | 0
1
3
5
1 | 0
1
5
7
2 | 0
1
5
7
1 | 0
1
5
7
8 | 0
1
5
5
2 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Granulosa Cell Tumor Benign | | | | | | X | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Histiocytic Sarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | X | | |
| Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | | |
| Polyp Stromal | | | | | | X | | | | | | | | | | | | | | | | | | X |
| Endometrium, Adenocarcinoma | | | X | | | | | | | | | | | | | | | | | | | | | |
| Endothelium, Adenoma | | | X | | | | | | | | | | | | | | | | | | | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Histiocytic Sarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | X | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | + | | + | | | | | | | | | | | | | | | | | | + | | + |
| Axillary, Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | |
| Brachial, Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | |
| Cervical, Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Lymphoma Malignant | | | X | | | | | | | | | | | | | | | | | | | | |

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|----------------------|
| | 0
7
2
7 | 0
6
2
5 | 0
3
4
0 | 0
7
2
2 | 0
7
2
8 | 0
5
6
8 | 0
6
5
2 | 0
5
9
3 | 0
5
8
3 | 0
7
2
7 | 0
3
9
8 | 0
6
4
2 | 0
5
6
4 | 0
5
6
3 | 0
7
2
6 | 0
7
0
6 | 0
5
3
0 | 0
7
0
4 | 0
6
2
3 | 0
7
2
6 | 0
4
9
9 | 0
7
3
0 | 0
6
5
9 | | | |
| | 0
1
4
5
1 | 0
1
4
5
2 | 0
1
4
6
1 | 0
1
4
7
2 | 0
1
4
7
1 | 0
1
4
7
2 | 0
1
4
8
1 | 0
1
4
8
2 | 0
1
4
9
1 | 0
1
4
9
2 | 0
3
6
1
2 | 0
3
6
1
2 | 0
3
6
2
1 | 0
3
6
3
2 | 0
3
6
3
1 | 0
3
6
4
1 | 0
3
6
5
2 | 0
3
6
5
1 | 0
5
7
7
1 | 0
5
7
7
2 | 0
5
7
8
1 | 0
5
7
8
2 | 0
5
7
8
9 | 0
5
7
8
1 | | |

Bone, Femur +

NERVOUS SYSTEM

Brain, Brain Stem +
 Lymphoma Malignant X

Brain, Cerebellum +
 Lymphoma Malignant X

Brain, Cerebrum +
 Lymphoma Malignant X

Nerve Trigeminal +

Peripheral Nerve, Sciatic +

Peripheral Nerve, Tibial +

Spinal Cord, Cervical +

Spinal Cord, Lumbar +

Spinal Cord, Thoracic +

RESPIRATORY SYSTEM

Lung +
 Histiocytic Sarcoma, Metastatic, Skin X
 Lymphoma Malignant X

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| | 075 | 054 | 046 | 057 | 066 | 066 | 055 | 066 | 059 | 061 | 058 | 062 | 076 | 066 | 058 | 041 | 074 | 044 | 077 | 047 | 065 | 044 | 044 | 044 | |
| ANIMAL ID | 057 | 058 | 058 | 058 | 058 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 099 | 099 | 099 | 099 | 099 | 099 | 099 | 099 | 099 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 49 |
| Granulosa Cell Tumor Benign | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 49 |
| Histiocytic Sarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Polyp Stromal | | | | | | | | | | | | | | | | | | X | | | X | | | | 4 |
| Endometrium, Adenocarcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Endothelium, Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node | + | | | | | | | | | | | | | + | | | | | | | | | | | 6 |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Brachial, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0725 | 0726 | 0728 | 0731 | 0732 | 0733 | 0734 | 0735 | 0736 | 0737 | 0738 | 0739 | 0740 | 0741 | 0742 | 0743 | 0744 | 0745 | 0746 | 0747 | 0748 | 0749 | 0750 | 0751 | |
| ANIMAL ID | 05792 | 05581 | 05552 | 05551 | 05550 | 05549 | 05548 | 05547 | 05546 | 05545 | 05544 | 05543 | 05542 | 05541 | 05540 | 05539 | 05538 | 05537 | 05536 | 05535 | 05534 | 05533 | 05532 | 05531 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| Lymph Node, Mesenteric Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spleen Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Thymus Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Thymus Squamous Cell Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenocarcinoma | | | | X | | X | | | | | | | | | | | | | | | X | | | | 10 |
| Adenocarcinoma, Multiple | | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fibroadenoma | | X | | | X | | | | | | | X | X | | | X | X | | | | X | | X | | 13 |
| Fibroadenoma, Multiple | X | | X | X | | | X | X | X | X | X | X | | X | | X | | X | X | X | | X | | | 32 |
| Skin | | | | | | | | | | | | | | | | + | | | | | | | | | 8 |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Subcutaneous Tissue, Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|-----|
| | 075 | 054 | 046 | 057 | 066 | 066 | 055 | 066 | 059 | 061 | 058 | 062 | 076 | 066 | 058 | 041 | 074 | 044 | 077 | 047 | 065 | 044 | 054 | 044 | | 044 |
| ANIMAL ID | 057 | 058 | 058 | 058 | 058 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 095 | 095 | 095 | 095 | 095 | 095 | 095 | 095 | 095 | 095 | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Nerve Trigeminal | | | | | | | | | | | | | + | + | | | | | | | | | | | 3 | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | + | + | | | | | | | | | | | 3 | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | + | + | | | | | | | | | | | 3 | |
| Spinal Cord, Cervical | | | | | | | | | | | | | + | + | | | | | | | | | | | 3 | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | + | + | | | | | | | | | | | 3 | |
| Spinal Cord, Thoracic | | | | | | | | | | | | | + | + | | | | | | | | | | | 3 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 40 | |
| Histiocytic Sarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| | 075 | 054 | 046 | 057 | 066 | 066 | 055 | 066 | 059 | 061 | 058 | 062 | 076 | 065 | 058 | 047 | 044 | 077 | 047 | 067 | 055 | 044 | 044 | 044 | |
| ANIMAL ID | 057 | 058 | 058 | 058 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 077 | 095 | 095 | 095 | 095 | 095 | 095 | 095 | 095 | 095 | 095 | |
| Squamous Cell Carcinoma, Metastatic, Thymus | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Nose Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 36 | |
| Trachea | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 36 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland Adenoma | | | | | | | | | | | | | | | + | X | | | | | | | | 1 | |
| | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| SYSTEMIC LESIONS | | | | | | | | | | | | | | | | | | | | | | | | | |
| Multiple Organ Histiocytic Sarcoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------------------------------|----------------------|
| | 0529 | 0571 | 0613 | 0665 | 0707 | 0749 | 0791 | 0833 | 0875 | 0917 | 0959 | 1001 | 1043 | 1085 | 1127 | 1169 | 1211 | 1253 | 1295 | 1337 | 1379 | 1421 | 1463 | 1505 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0116611333355555599999911221 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adrenal Medulla
Pheochromocytoma Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic
Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | |
| Pituitary Gland
Pars Distalis, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thyroid Gland | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | | | | | | | + | | | | | | | | | | + | + | + | | | | | |
| Ovary
Sex Cord Stromal Tumor, Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Oviduct | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Uterus
Polyp Stromal | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|
| | 0727 | 0754 | 0765 | 0744 | 0744 | 0744 | 0755 | 0775 | 0755 | 0766 | 0755 | 0766 | 0777 | 0777 | 0755 | 0776 | 0766 | 0766 | 0777 | 0755 | | 0755 |
| ANIMAL ID | 0952 | 0951 | 0952 | 0951 | 0952 | 0951 | 0977 | 0977 | 0977 | 0977 | 0977 | 0977 | 0977 | 0977 | 0977 | 0977 | 0986 | 0986 | 0986 | 0986 | 0986 | 0986 |

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Adrenal Medulla
Pheochromocytoma Benign | + | + | + | + | | X | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
1 |
| Islets, Pancreatic
Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | + | + | 48
1 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Pituitary Gland
Pars Distalis, Adenoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
14 |
| Thyroid Gland | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|
| Clitoral Gland | | | | | | | | | | | | | | | + | | | | | | | + | 6 |
| Ovary
Sex Cord Stromal Tumor, Benign | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47
1 |
| Oviduct | + | + | + | + | + | A | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 45 |
| Uterus
Polyp Stromal | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | X | + | + | + | + | + | + | 48
5 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 077 | 075 | 076 | 074 | 074 | 074 | 075 | 077 | 075 | 076 | 075 | 075 | 076 | 077 | 077 | 075 | 077 | 076 | 076 | 077 | | 075 | 075 |
| ANIMAL ID | 05952 | 05991 | 05999 | 05999 | 05999 | 05788 | 05788 | 05788 | 05788 | 05788 | 05788 | 05788 | 05788 | 05788 | 05966 | 05966 | 05966 | 05966 | 05966 | 05977 | 05977 | 05977 | 05977 |
| Sarcoma | | | | | | X | | | | | | | | | | | | | | | | | 1 |
| Schwannoma Malignant | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Vagina | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Lymph Node | | | | + | | | | | | | | | | | | | | | | | | | 3 |
| Lymph Node, Mandibular | | | | + | | | | | | | | | | | | | | | | | | | 3 |
| Spleen | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Adenocarcinoma | | | | | | | | | | | | | | | X | | | | | | | X | 4 |
| Adenocarcinoma, Multiple | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Carcinosarcoma | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Fibroadenoma | | | | | X | | | | | | | | X | | | | | | | | | X | 9 |
| Fibroadenoma, Multiple | X | | X | | | | X | X | X | X | | | | X | X | X | X | X | X | X | X | X | 28 |
| Skin | + | | | + | | | | | | | | | | | | | | | | | | | 8 |
| Basal Cell Adenoma | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|-------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | ANIMAL ID | 7 | 5 | 6 | 4 | 4 | 4 | 5 | 7 | 5 | 6 | 5 | 5 | 6 | 7 | 7 | 5 | 7 | 6 | 6 | 7 | 5 | 5 | 7 |
| | | | 2 | 7 | 5 | 4 | 8 | 8 | 8 | 2 | 8 | 2 | 4 | 1 | 6 | 2 | 4 | 2 | 5 | 2 | 2 | 7 | 0 | 0 | 2 |
| | | | 7 | 4 | 2 | 3 | 4 | 9 | 2 | 6 | 8 | 9 | 0 | 1 | 0 | 8 | 7 | 1 | 8 | 2 | 4 | 7 | 4 | 6 | 8 |
| | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | | | 9 | 9 | 9 | 9 | 9 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 |
| | | | 5 | 6 | 6 | 7 | 7 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 |
| | | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| | | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | |

Multiple Organ

+ +

48

* .. Total animals with tissue examined microscopically; Total animals with tumor
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0630 | 0638 | 0654 | 0672 | 0665 | 0656 | 0666 | 0644 | 0644 | 0655 | 0655 | 0677 | 0667 | 0672 | 0672 | 0699 | 0699 | 0677 | 0655 | 0655 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 |
| | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adenoma | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | |
| Bilateral, Adenoma | | | | | | | | | | | | | | X | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | M |
| Pheochromocytoma Benign | | | | | | | | | | | | | | | | | | X | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenoma | | | | | | | | | | | | X | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + |
| Carcinoma, Deep Invasion | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Adenoma | | | X | | | | | | | | X | | | | | | | | X | | X | X |
| Pars Distalis, Carcinoma | | X | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | A | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + |
| C-cell, Carcinoma | | | | | | | | | | | X | | | | | | | | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|---|---|--|--|--|--|--|--|---|--|--|---|--|--|--|--|---|--|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | | | + | | | | | | | | + | | | + | | | | | + | |
| Carcinoma | | | | | | X | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
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 Bisphenol A
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 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|-------|------|
| | 0630 | 0638 | 0542 | 0727 | 0622 | 0526 | 0668 | 0665 | 0449 | 0448 | 0551 | 0558 | 0729 | 0676 | 0742 | 0467 | 0463 | 0772 | 0778 | 0556 | | | 0556 | 0722 | 0678 | 0603 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11771 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11772 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11778 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11781 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11782 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11789 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11790 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11799 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11800 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11801 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11802 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11803 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11804 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11805 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11806 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11807 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11808 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11809 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11810 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11811 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11812 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11813 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11814 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11815 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11816 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11817 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11818 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11819 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11820 | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X |
| Brain, Cerebellum
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X |
| Brain, Cerebrum
Leukemia Mononuclear | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung
Leukemia Mononuclear | + | + | + | | + | + | + | + | + | + | + | + | + | | + | + | + | + | | + | + | + | | + | X |
| Nose | + | + | + | | + | + | + | + | + | + | + | + | | + | + | + | + | | + | + | + | | + | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
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| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | 0630 | 0638 | 0542 | 0727 | 0622 | 0526 | 0665 | 0642 | 0445 | 0445 | 0572 | 0552 | 0727 | 0676 | 0744 | 0466 | 0446 | 0767 | 0555 | 0555 | 0727 | 0666 | 0727 |
| | ANIMAL ID | 0171 | 0177 | 0178 | 0178 | 0178 | 0179 | 0180 | 0181 | 0181 | 0181 | 0181 | 0181 | 0181 | 0181 | 0181 | 0181 | 0181 | 0181 | 0181 | 0181 | 0181 | 0181 | 0181 |

females
(cont...)

Trachea A + + + + + + + + + A + + + + + + + + +

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney + + + + + + + + + A + + + + + + + + +
 Leukemia Mononuclear X

SYSTEMIC LESIONS

Multiple Organ +
 Leukemia Mononuclear X
 Lymphoma Malignant X

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|
| | ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 1 | 1 | 1 | 1 | 1 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | 1 | 2 | 2 | 3 | 3 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Squamous Cell Papilloma | X | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Polyp Stromal | X | | | | | | | | | | | | | | | | | | | | | | | 5 |
| Polyp Stromal, Multiple | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cervix, Polyp Stromal | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | 10 |
| Lumbar, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | 8 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|
| | 0723 | 0728 | 0536 | 0733 | 0778 | 0778 | 0778 | 0462 | 0550 | 0664 | 0551 | 0665 | 0744 | 0772 | 0776 | 0688 | 0669 | 0488 | 0661 | 0725 | 0449 | 0443 | 0663 | 0556 | | 0778 |
| ANIMAL ID | 0611 | 0612 | 0662 | 0663 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | X | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Adenocarcinoma | | | | | | X | | | | | | | | | X | X | | | X | X | | | | | | 5 |
| Adenocarcinoma, Multiple | | | | | | | | | | X | | | | | | | | | | | | | | | | 2 |
| Adenoma | | | | | | | | | | X | | | | | | | | | | | | | | X | | 3 |
| Fibroadenoma | | | | | | | X | | | | | | | | X | X | | | | | X | X | | | | 11 |
| Fibroadenoma, Multiple | X | | X | X | X | X | | X | X | X | X | X | X | X | | | X | X | | | X | X | | | | 31 |
| Skin | | + | | + | + | | + | + | + | | | | + | | | | | | | + | | | + | + | | 19 |
| Basal Cell Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Squamous Cell Papilloma | | | | X | X | | | | | | | | | | | | | | | | | | | | | 2 |
| Subcutaneous Tissue, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Lipoma | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | + | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-----------|----------------------|
| | 0647 | 0725 | 0671 | 0725 | 0665 | 0663 | 0639 | 0764 | 0664 | 0577 | 0668 | 0459 | 0578 | 0649 | 0459 | 0773 | 0659 | 0555 | 0555 | 0562 | 0729 | 0448 | 0644 | 0611 | 0641 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 01931 | 069331 | |

Leukemia Mononuclear

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Fibrosarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Islets, Pancreatic | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Parathyroid Gland | M | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Adenoma | X | | | X | X | | | | | X | X | X | | | | | | X | | X | X | | | X | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-----------|----------------------|
| | 0647 | 0725 | 0671 | 0727 | 0665 | 0663 | 0391 | 0726 | 0664 | 0667 | 0500 | 0729 | 0668 | 0489 | 0578 | 0772 | 0659 | 0552 | 0554 | 0556 | 0729 | 0448 | 0144 | 0142 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 01931 | | |

Carcinoma

X

Fat Pad, Ovarian/parametrial

Ovary

Fibrosarcoma, Metastatic, Skin
 Leukemia Mononuclear
 Thecoma Malignant

+
 X

Oviduct

+ + + + + + + + + + + + + + A + + + + + + + + + +

Uterus

Polyp Stromal

+ + + + + + + + X + + + + + A + + + + + + + + + +
 X X X

Vagina

Sarcoma Stromal

+ + + + + + + + + + + + + + A + + + + + + + + + +
 X

HEMATOPOIETIC SYSTEM

Bone Marrow

Leukemia Mononuclear

+ + + + + + + + + + + + + + A + + + + + + + + + +

Lymph Node

Mediastinal, Fibrosarcoma, Metastatic, Skin

+
 X

Lymph Node, Mandibular

+

Spleen

Fibrosarcoma, Metastatic, Skin
 Leukemia Mononuclear

+ + + + + + + + + + + + + + A + + + + + + + + + +
 X

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
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 CAS Number: 80-05-7
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|
| | 0647 | 0727 | 0651 | 0727 | 0665 | 0665 | 0391 | 0726 | 0664 | 0667 | 0579 | 0768 | 0648 | 0591 | 0728 | 0773 | 0659 | 0552 | 0554 | 0556 | | | 0729 | 0448 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 |
| | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 6 | 6 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 |

Thymus + M
 Lymphoma Malignant X

INTEGUMENTARY SYSTEM

Mammary Gland +
 Adenocarcinoma X
 Adenocarcinoma, Multiple X
 Adenosquamous Carcinoma X
 Fibroadenoma X
 Fibroadenoma, Multiple X
 Fibrosarcoma, Metastatic, Skin X
 Skin +
 Basal Cell Adenoma X
 Subcutaneous Tissue, Fibroma X
 Subcutaneous Tissue, Fibrosarcoma X
 Subcutaneous Tissue, Lipoma X

MUSCULOSKELETAL SYSTEM

Bone, Femur +

NERVOUS SYSTEM

Brain, Brain Stem +
 Leukemia Mononuclear +
 Brain, Cerebellum +
 Leukemia Mononuclear +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0647 | 0767 | 0652 | 0771 | 0665 | 0663 | 0391 | 0766 | 0644 | 0577 | 0668 | 0489 | 0578 | 0775 | 0663 | 0552 | 0554 | 0564 | 0729 | 0448 | 0144 | 0666 | 0642 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0193 | 0666 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 0666 | 0666 | |
| | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 331 | 5666 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 121 | 771 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Glioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nerve Trigeminal | | | + | | | | | | | | | | | | | | | | | | + | + | | | |
| Peripheral Nerve, Sciatic | | | | + | | | | | | | | | | | | | | | | | | + | + | | |
| Peripheral Nerve, Tibial | | | | | + | | | | | | | | | | | | | | | | | + | + | | |
| Spinal Cord, Cervical | | | | | | + | | | | | | | | | | | | | | | | + | + | | |
| Spinal Cord, Lumbar | | | | | | | + | | | | | | | | | | | | | | | | + | + | |
| Spinal Cord, Thoracic | | | | | | | | + | | | | | | | | | | | | | | | + | + | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|--|---|---|---|---|---|--|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lung | + | | + | + | + | + | + | | + | + | + | | + | + | + | + | + | + | + | + | | + | + | | |
| Fibrosarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | + | | + | | + | + | + | | + | + | + | | + | A | + | | | | | + | + | + | + | + | + |
| Trachea | + | | + | | + | + | + | | + | + | + | | + | A | + | | | | | + | + | + | + | + | + |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | |
|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | females
(cont...) |
|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|
| DAY ON TEST | | 6 | 7 | 6 | 7 | 6 | 6 | 6 | 3 | 7 | 6 | 6 | 5 | 7 | 6 | 4 | 5 | 7 | 7 | 6 | 5 | 5 | 5 | 7 | 4 | 1 | |
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | | 4 | 2 | 5 | 2 | 5 | 6 | 3 | 9 | 2 | 4 | 4 | 0 | 2 | 8 | 8 | 9 | 2 | 2 | 9 | 0 | 5 | 6 | 2 | 4 | 4 | |
| ANIMAL ID | | 7 | 7 | 1 | 7 | 1 | 5 | 1 | 1 | 6 | 3 | 7 | 7 | 9 | 5 | 9 | 1 | 8 | 5 | 3 | 5 | 2 | 4 | 9 | 8 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 |
| | | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | 7 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Fibrosarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lipoma | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | | |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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Experiment Number: 10034 - 04
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 Bisphenol A
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|
| | 0471 | 0728 | 0729 | 0641 | 0669 | 0725 | 0569 | 0067 | 0054 | 0045 | 0075 | 0058 | 0072 | 0066 | 0066 | 0066 | 0077 | 0077 | 0055 | 0055 | | 0077 | 0077 | | | | |
| ANIMAL ID | 06272 | 06281 | 06282 | 06291 | 06292 | 06811 | 06812 | 06813 | 06814 | 06815 | 06816 | 06817 | 06818 | 06819 | 06891 | 06892 | 06893 | 06894 | 06895 | 06896 | 06897 | 06898 | 06899 | 01000 | 01000 | 01000 | 01000 |

Leukemia Mononuclear

X

1

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibrosarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Parathyroid Gland | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pars Distalis, Adenoma | | X | | X | | X | X | X | | | | X | | | | | | X | X | | X | | | | | | X | 20 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|---|--|---|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Clitoral Gland | | | + | | + | | | | | | + | | | | | | | | | | | | | | | | | 6 |
|----------------|--|--|---|--|---|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|
| | 04 | 07 | 07 | 06 | 06 | 07 | 05 | 06 | 05 | 04 | 05 | 07 | 05 | 07 | 06 | 06 | 06 | 07 | 07 | 05 | | 05 | 07 | 07 |
| ANIMAL ID | 06 | 06 | 06 | 06 | 06 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 09 |
| | 22 | 22 | 22 | 22 | 22 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| | 72 | 81 | 82 | 89 | 91 | 92 | 22 | 22 | 33 | 41 | 44 | 55 | 55 | 66 | 66 | 77 | 77 | 88 | 88 | 11 | 11 | 11 | 11 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Adenocarcinoma | | X | | | | X | | | | | | | | | | | | | X | | | | | 8 |
| Adenocarcinoma, Multiple | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Adenosquamous Carcinoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fibroadenoma | | | | | | | X | | | | X | | | | | | | | | | | | | 7 |
| Fibroadenoma, Multiple | | X | | | X | X | | X | X | | | X | X | X | X | X | X | X | X | X | X | X | X | 29 |
| Fibrosarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Skin | + | | | | | | + | + | | | | + | + | | | + | | | | | | | | 16 |
| Basal Cell Adenoma | | | | | | | | | | | | | | | | | X | | | | | | | 1 |
| Subcutaneous Tissue, Fibroma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Fibrosarcoma | | | | | | | | | | | | | | X | | | | | | | | | | 2 |
| Subcutaneous Tissue, Lipoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | X | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|
| | 0471 | 0728 | 0729 | 0641 | 0669 | 0755 | 0569 | 0573 | 0490 | 0547 | 0553 | 0728 | 0573 | 0628 | 0667 | 0668 | 0666 | 0774 | 0778 | 0552 | | 0557 | 0778 | 0777 | | | |
| ANIMAL ID | 06272 | 06281 | 06282 | 06221 | 06222 | 06811 | 06811 | 06811 | 06811 | 06811 | 06811 | 06811 | 06811 | 06811 | 06811 | 06999 | 06999 | 06999 | 06999 | 06999 | 06999 | 06999 | 06999 | 01000 | 01000 | 01000 | 01000 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Glioma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | | + | + | | + | + | + | + | + | + | + | | + | + | + | + | | + | + | + | | | | 39 | |
| Fibrosarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Nose | + | | | + | + | | + | + | + | + | + | | + | | + | + | + | + | | + | + | | | | | 32 | |
| Trachea | + | | | + | + | | + | + | + | + | + | | + | | + | + | + | + | | + | + | | | | | 32 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Eye | | | | | | | + | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
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M .. Missing tissue
 A .. Autolysis precludes evaluation
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 Bisphenol A
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 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | 0
4
7
1 | 0
7
2
8 | 0
7
2
9 | 0
6
4
1 | 0
6
5
9 | 0
7
2
5 | 0
5
6
9 | 0
6
7
3 | 0
5
4
0 | 0
4
9
7 | 0
5
4
3 | 0
7
2
8 | 0
5
8
7 | 0
6
8
1 | 0
6
6
6 | 0
6
7
2 | 0
7
2
8 | 0
7
2
1 | 0
5
8
7 | 0
5
2
8 | 0
7
2
7 | 0
7
2
7 | * TOTALS |
| | ANIMAL ID | 0
6
2
7
2 | 0
6
2
8
1 | 0
6
2
8
2 | 0
6
2
9
1 | 0
6
8
2
1 | 0
8
8
2
2 | 0
8
8
3
1 | 0
8
8
3
2 | 0
8
8
4
1 | 0
8
8
4
2 | 0
8
8
5
1 | 0
8
8
5
2 | 0
8
8
6
1 | 0
8
9
6
2 | 0
9
9
6
1 | 0
9
9
7
2 | 0
9
9
7
1 | 0
9
9
8
2 | 0
9
9
8
1 | 1
0
0
0
1 | 1
0
0
0
2 | 1
0
0
2
1 | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Fibrosarcoma, Metastatic, Skin | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Lipoma | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | 1 |

SYSTEMIC LESIONS

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Multiple Organ | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Histiocytic Sarcoma | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Leukemia Mononuclear | | | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|------|---|
| | 0727 | 0653 | 0673 | 0678 | 0676 | 0677 | 0677 | 0661 | 0675 | 0673 | 0634 | 0658 | 0688 | 0643 | 0677 | 0679 | 0666 | 0666 | 0677 | 0652 | 0677 | 0667 | 0668 | 0649 | | 0675 | 0648 | |
| ANIMAL ID | 02091 | 0229 | 0221 | 0221 | 0221 | 0221 | 0222 | 0222 | 0222 | 0222 | 0244 | 0244 | 0244 | 0244 | 0244 | 0244 | 0244 | 0244 | 0244 | 0244 | 0244 | 0266 | 0266 | 0266 | 0266 | 0266 | | |
| Blood Vessel
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | | |
| Heart
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex
Adenoma
Lymphoma Malignant | + | + | + | + | + | X | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | |
| Adrenal Medulla
Lymphoma Malignant
Pheochromocytoma Benign | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Islets, Pancreatic
Adenoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | |
| Parathyroid Gland
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pituitary Gland
Lymphoma Malignant
Pars Distalis, Adenoma
Pars Distalis, Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | + | + | + | + | + | X |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
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 Bisphenol A
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| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SPRAGUE DAWLEY (NCTR)
 RATS FEMALE
 F1 25000StDose F | DAY ON TEST | 0727 | 0653 | 0673 | 0678 | 0677 | 0677 | 0661 | 0677 | 0635 | 0644 | 0677 | 0677 | 0666 | 0666 | 0655 | 0677 | 0666 | 0666 | 0677 | 0655 | 0677 | 0666 | 0644 |
| | ANIMAL ID | 02091 | 02290 | 02201 | 02211 | 02211 | 02211 | 02211 | 02211 | 02233 | 02233 | 02255 | 02255 | 02266 | 02266 | 02288 | 02288 | 02299 | 02299 | 02299 | 02299 | 02299 | 02299 | 02299 |

females
(cont...)

Lymphoma Malignant

GENERAL BODY SYSTEM

Tissue NOS
Lipoma

GENITAL SYSTEM

Clitoral Gland
Adenoma
Carcinoma

+ +

Ovary
Lymphoma Malignant

+ X

Oviduct
Lymphoma Malignant

+ X

Uterus
Lymphoma Malignant
Polyp Stromal
Endometrium, Adenoma

+ X
 X
 X

Vagina
Lymphoma Malignant

+ +

HEMATOPOIETIC SYSTEM

Bone Marrow

+ + + + + + + + + + + + + + + + + M + + + + + +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|------|------|------|------|
| | 0727 | 0653 | 0663 | 0678 | 0666 | 0677 | 0677 | 0661 | 0675 | 0673 | 0654 | 0674 | 0677 | 0666 | 0666 | 0655 | 0670 | 0662 | 0667 | 0675 | 0662 | 0677 | 0664 | 0669 | | | | | | |
| ANIMAL ID | 02091 | 0229 | 0221 | 0220 | 0221 | 0221 | 0222 | 0222 | 0222 | 0224 | 0224 | 0224 | 0224 | 0224 | 0224 | 0224 | 0222 | 0222 | 0222 | 0222 | 0224 | 0224 | 0224 | 0226 | 0226 | 0226 | 0226 | 0226 | 0226 | 0226 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | + | | + | | | | | | | | | | | | | + | | | | | | | | | | | | | | |
| Axillary, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cervical, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inguinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular Lymphoma Malignant | + | | | | | | | | | | | | | | | + | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Thymus Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Thymoma Benign | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland Adenocarcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenocarcinoma, Multiple | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adenoma | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| | 0727 | 0653 | 0663 | 0678 | 0666 | 0677 | 0677 | 0661 | 0671 | 0673 | 0654 | 0674 | 0677 | 0666 | 0666 | 0655 | 0670 | 0666 | 0667 | 0657 | 0677 | 0666 | 0675 | 0649 | |
| ANIMAL ID | 02091 | 02002 | 02011 | 02011 | 02011 | 02011 | 02011 | 02011 | 02011 | 02011 | 02044 | 02044 | 02044 | 02044 | 02044 | 02044 | 02044 | 02044 | 02044 | 02044 | 02066 | 02066 | 02066 | 02066 | |

Fibroadenoma X
 Fibroadenoma, Multiple X
 Lymphoma Malignant X

Skin +
 Basal Cell Carcinoma +
 Subcutaneous Tissue, Lipoma +

MUSCULOSKELETAL SYSTEM

Bone, Femur +
 Skeletal Muscle +
 Lymphoma Malignant X

NERVOUS SYSTEM

Brain, Brain Stem +
 Carcinoma, Deep Invasion X
 Lymphoma Malignant X
 Brain, Cerebellum +
 Lymphoma Malignant X
 Brain, Cerebrum +
 Glioma Malignant X
 Granular Cell Tumor Benign X
 Lymphoma Malignant X
 Nerve Trigeminal +

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | 077 | 065 | 067 | 062 | 066 | 062 | 065 | 067 | 063 | 065 | 064 | 067 | 067 | 066 | 066 | 065 | 067 | 066 | 066 | 067 | 065 | 067 | 066 | 064 |
| | ANIMAL ID | 020 | 020 | 021 | 021 | 021 | 022 | 022 | 022 | 022 | 024 | 024 | 024 | 024 | 024 | 024 | 024 | 024 | 024 | 024 | 026 | 026 | 026 | 026 | 026 |
| | | 91 | 92 | 01 | 02 | 11 | 12 | 21 | 22 | 31 | 32 | 51 | 52 | 61 | 62 | 71 | 72 | 81 | 82 | 91 | 92 | 11 | 12 | 21 | 22 |
| | | | | | | | | | | | | | | | | | | | | | | | | | |

females
(cont...)

Urinary Bladder

SYSTEMIC LESIONS

Multiple Organ
 Lymphoma Malignant

+
 X

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|-----------------|
| | 0727 | 0447 | 0594 | 0728 | 0598 | 0443 | 0446 | 0443 | 0727 | 0437 | 0437 | 0476 | 0476 | 0675 | 0675 | 0564 | 0663 | 0663 | 0757 | 0757 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0643 | |
| | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 4445 | |
| | 3 | 4 | 4 | 4 | 5 | 5 | 6 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 2122 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | * TOTALS |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------------------------|
| Esophagus | + | + | | + | + | + | + | | + | + | + | | + | + | | + | + | + | + | 33 |
| Intestine Large, Colon
Adenocarcinoma | + | + | | + | A | + | + | | + | + | + | | + | + | | + | + | + | + | 33
1 |
| Intestine Small, Ileum
Lymphoma Malignant | + | + | | + | + | + | + | | + | + | + | | + | + | | + | + | + | + | 33
1 |
| Liver
Hepatocellular Adenoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1
2 |
| Mesentery | | | | + | | | | | | | | | | | | | | | | 3 |
| Oral Mucosa
Squamous Cell Papilloma | | | | | | | | | | | | | | | | | | | | 1
1 |
| Pancreas
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
2 |
| Stomach, Forestomach
Lymphoma Malignant
Squamous Cell Papilloma | | + | + | | + | + | + | | + | + | + | | + | + | | + | + | + | + | 34
2
1 |
| Stomach, Glandular
Lymphoma Malignant | | + | + | | + | A | + | + | | + | + | + | | + | + | | + | + | + | 32
1 |

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| | 0727 | 0447 | 0597 | 0728 | 0598 | 0435 | 0446 | 0463 | 0727 | 0470 | 0344 | 0776 | 0775 | 0665 | 0564 | 0663 | 0654 | 0663 | 0727 | 0727 | |
| ANIMAL ID | 06432 | 06441 | 06444 | 06445 | 06455 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | |
| Blood Vessel
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1 |
| Heart
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
2 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex
Adenoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1
2 |
| Adrenal Medulla
Lymphoma Malignant
Pheochromocytoma Benign | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 45
1
1 |
| Islets, Pancreatic
Adenoma
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1
1 |
| Parathyroid Gland
Lymphoma Malignant | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
1 |
| Pituitary Gland
Lymphoma Malignant
Pars Distalis, Adenoma
Pars Distalis, Carcinoma | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
2
20
1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID |
|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----------------|
| | 07 | 04 | 05 | 07 | 05 | 04 | 04 | 04 | 07 | 04 | 03 | 04 | 07 | 06 | 07 | 07 | 06 | 05 | 06 | 06 | |
| | 2 | 4 | 9 | 2 | 9 | 3 | 4 | 6 | 2 | 7 | 9 | 8 | 2 | 3 | 0 | 2 | 6 | 1 | 0 | 5 | 2 |
| | 7 | 7 | 4 | 8 | 8 | 5 | 6 | 3 | 7 | 0 | 4 | 6 | 7 | 5 | 0 | 6 | 5 | 4 | 3 | 7 | 7 |
| | 06 | 06 | 06 | 06 | 06 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 |
| | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 3 | 4 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS |

Lymphoma Malignant

X

1

Lymph Node

+ + + + + + +

11

Axillary, Lymphoma Malignant

X

2

Cervical, Lymphoma Malignant

X

2

Inguinal, Lymphoma Malignant

1

Lumbar, Lymphoma Malignant

X

2

Mediastinal, Lymphoma Malignant

X

1

Pancreatic, Lymphoma Malignant

X

2

Renal, Lymphoma Malignant

X

2

Lymph Node, Mandibular

+ +

5

Lymphoma Malignant

X

2

Lymph Node, Mesenteric

+

2

Lymphoma Malignant

X

2

Spleen

+ + + + + + + + + + + + + + + + + +

46

Lymphoma Malignant

X

2

Thymus

+ + + + + + + + + + + + + + + + + +

46

Lymphoma Malignant

X

2

Thymoma Benign

1

INTEGUMENTARY SYSTEM

Mammary Gland

+ + + + + + + + + + + + + + + + + +

46

Adenocarcinoma

X

3

Adenocarcinoma, Multiple

2

Adenoma

1

* .. Total animals with tissue examined microscopically; Total animals with tumor

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0727 | 0447 | 0549 | 0728 | 0598 | 0435 | 0446 | 0446 | 0773 | 0470 | 0346 | 0477 | 0676 | 0777 | 0665 | 0564 | 0663 | 0667 | 0752 | | |
| ANIMAL ID | 06432 | 06441 | 06442 | 06441 | 06452 | 06821 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06823 | 06833 | 06831 | 06800 | 06800 | 06801 | 06801 | 06802 | |

| | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|--|---|--|--|---|---|--|---|---|---|---|--|---|---|--|---|----|
| Fibroadenoma | | | | | | | | | X | | | | | | | | | X | | | 6 |
| Fibroadenoma, Multiple | X | X | X | X | | | | | | X | | | X | X | X | | X | X | | X | 28 |
| Lymphoma Malignant | | | | | | X | | | | | | | | | | | | | | | 2 |
| Skin | + | + | + | + | | | | | + | | | | + | + | | | | | | + | 12 |
| Basal Cell Carcinoma | X | | | | | | | | | | | | | | | | | | | | 1 |
| Subcutaneous Tissue, Lipoma | | | | | | | | | | | | X | | | | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Skeletal Muscle | | | | | | | | | | | | | + | | | | | | | | 2 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | 1 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Carcinoma, Deep Invasion | | | | X | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | X | | | | | | | | | | | | | | | 2 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Lymphoma Malignant | | | | | | X | | | | | | | | | | | | | | | 2 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Glioma Malignant | | | | | | | | | | | X | | | | | | | | | | 1 |
| Granular Cell Tumor Benign | | | | | | | | | | | | | | | | | | | | | 1 |
| Lymphoma Malignant | | | | | | X | | | | | | | | | | | | | | | 2 |
| Nerve Trigeminal | | | | | | | | | | + | + | + | | | | | | | + | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P04: NEOPLASMS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|----|
| | 0727 | 0447 | 0549 | 0728 | 0598 | 0435 | 0446 | 0446 | 0777 | 0479 | 0382 | 0472 | 0673 | 0770 | 0776 | 0665 | 0561 | 0660 | 0663 | 0772 | | |
| ANIMAL ID | 06432 | 06444 | 06444 | 06455 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | | |
| Peripheral Nerve, Sciatic | | | | | | | | | + | + | + | | | | | | | | | + | 4 | |
| Peripheral Nerve, Tibial | | | | | | | | | + | + | + | | | | | | | | | | + | 4 |
| Spinal Cord, Cervical | | | | | | | | | + | + | + | | | | | | | | | | + | 4 |
| Spinal Cord, Lumbar | | | | | | | | | + | + | + | | | | | | | | | | + | 4 |
| Spinal Cord, Thoracic | | | | | | | | | + | + | + | | | | | | | | | | + | 4 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | | + | + | + | + | | 37 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Nose | | + | + | | + | + | + | + | | + | + | + | | + | + | | + | + | + | + | | 33 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Trachea | | + | + | | + | + | + | + | | + | + | + | | + | + | | + | + | + | + | | 33 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | 1 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Ear | | | | | | | | | | | | | | | | | | | | | | 1 |
| Neural Crest Tumor, Benign | | | | | | | | | | | | | | | | | | | | | | 1 |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 46 |
| Lymphoma Malignant | | | | | | | | | | | | | | | | | | | | | X | 2 |

* .. Total animals with tissue examined microscopically; Total animals with tumor
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

Appendix V Non-neoplastic Lesions by Individual Animal (Pathology Report 9)

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

NTP Study Number: C10034
Lock Date: 08/16/2017
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: 09/29/2017

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
2
8
3 | 0
3
6
1 | 0
3
6
2 | 0
3
5
4 | 0
3
6
0 | 0
2
5
9 | 0
3
6
3 | 0
3
6
2 | 0
3
6
0 | 0
3
6
3 | 0
3
6
3 | 0
3
6
5 | 0
3
6
6 | 0
3
6
4 | 0
3
6
7 | 0
3
6
6 | 0
3
6
6 | 0
3
6
6 | 0
3
6
6 | 0
3
6
4 | | 0
3
6
4 |
| ANIMAL ID | 0
0
0
7
1 | 0
0
0
7
2 | 0
0
0
8
1 | 0
2
0
8
2 | 0
2
2
2
1 | 0
2
2
3
2 | 0
2
2
3
1 | 0
2
2
4
2 | 0
2
2
4
1 | 0
2
2
4
2 | 0
4
3
8
1 | 0
4
3
9
2 | 0
4
3
9
1 | 0
4
3
9
2 | 0
4
4
0
1 | 0
4
4
0
2 | 0
6
5
4
1 | 0
6
5
4
2 | 0
6
5
5
1 | 0
6
5
5
2 | 0
8
3
9
1 | 0
8
3
9
2 |
| Inflammation, Chronic Active Epithelium, Hyperplasia | | | | | 1 | | | | | | | | | | | | | | | | | 1 1.0 |
| | | | | | 1 | | | | | | | | | | | | | | | | | 1 1.0 |
| Stomach, Glandular | + | | | | + | | | | | | | | | + | + | | | | | | | 4 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Cardiomyopathy | | 2 | 1 | 2 | 3 | 2 | | 1 | | 1 | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 | 2 | 1 |
| | | | | | | | | | | | | | | | | | | | | | | 16 1.4 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Hyperplasia | | | | | | | | 2 | 1 | | | 2 | | | | | | 1 | 2 | 1 | | 7 1.6 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Pars Distalis, Hyperplasia | | | | | 2 | | | 1 | | 1 | | | | | | | | 1 | | | | 4 1.3 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Ultimobranchial Cyst | | X | X | X | | | | | | | X | | | | | | | X | | | | 5 |
| C-cell, Hyperplasia | | | | | | 1 | | | | | 1 | 2 | 2 | | 3 | 1 | 2 | | 3 | 3 | | 10 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|-------|
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2 | | |
| Seminiferous Tubule, Degeneration | 1 | | | | 4 | 2 | | 1 | | | | | | 1 | | | 4 | | | | | | 6 2.2 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Lymph Node | + | | | | | | | | | | | | | + | | | | | | | | 2 |
| Lymph Node, Mandibular | + | | | | | | | | | | | | | + | | | | | | | | 2 |
| Lymph Node, Mesenteric | + | | | | | | | | | | | | | + | | | | | | | | 2 |
| Spleen
Pigmentation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22
15 1.8 |
| Thymus
Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22
18 3.5 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------------|
| Mammary Gland
Hyperplasia, Lobular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22
2 2.0 |
| Skin | | | | | | | | | | | | | | | | | | | | + | | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | + | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
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|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Adrenal Cortex
Vacuolization Cytoplasmic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | 3 | 2.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Parathyroid Gland
Hyperplasia | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 21 | 5 | 1.6 |
| Pituitary Gland
Pars Distalis, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | 6 | 1.0 |
| Thyroid Gland
Infiltration Cellular, Lymphocyte | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | 1 | 1.0 |
| Ultimobranchial Cyst | | | X | X | X | X | | | | | | | | | | | | | | | | | 4 | | |
| C-cell, Hyperplasia | 1 | | | | 1 | | 1 | 1 | | | 1 | | | 3 | 2 | 3 | | 2 | 2 | 1 | 1 | 2 | 13 | 1.6 | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | 3 | | | | | | | | | | | | 1 | 3.0 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Epididymis
Exfoliated Germ Cell | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | 1 | 1.0 |
| Hypospermia | | | 4 | | 4 | | | | | | | | | 4 | | | | | 4 | | | | 4 | 4 | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Experiment Number: 10034 - 03
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
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| Infiltration Cellular, Lymphocyte | 2 | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Fat Pad, Epididymal
Necrosis | + | | | | | | | | | | | | | | | | | | | | 1 | |
| | 4 | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Preputial Gland
Inflammation, Suppurative
Duct, Dilatation | + | | | | | | | | | | | | | | | | | | | | 3 | |
| | 2 4 4 | | | | | | | | | | | | | | | | | | | | 3 3.3 | |
| | 2 3 3 | | | | | | | | | | | | | | | | | | | | 3 2.7 | |
| Prostate, Dorsal/lateral Lobe
Infiltration Cellular, Lymphocyte
Inflammation, Suppurative | + | | | | | | | | | | | | | | | | | | | | 22 | |
| | 1 2 2 2 2 2 2 2 2 2 1 1 1 1 2 2 2 2 1 2 | | | | | | | | | | | | | | | | | | | | 10 1.1
20 1.7 | |
| Prostate, Ventral Lobe
Infiltration Cellular, Lymphocyte
Inflammation, Suppurative | + | | | | | | | | | | | | | | | | | | | | 22 | |
| | 1 1 2 1 1 | | | | | | | | | | | | | | | | | | | | 10 1.2
3 1.0 | |
| Seminal Vesicle | + | | | | | | | | | | | | | | | | | | | | 22 | |
| Testes
Seminiferous Tubule, Degeneration | + | | | | | | | | | | | | | | | | | | | | 22 | |
| | 1 4 4 1 4 1 4 | | | | | | | | | | | | | | | | | | | | 7 2.7 | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | 22 | |
| Lymph Node
Renal, Degeneration, Cystic | + | | | | | | | | | | | | | | | | | | | | 1 | |
| | 3 | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Lymph Node, Mandibular
Hyperplasia, Lymphoid | + | | | | | | | | | | | | | | | | | | | | 1 | |
| | 2 | | | | | | | | | | | | | | | | | | | | 1 2.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue
 X .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|--------|
| | 0363 | 0362 | 0363 | 0362 | 0363 | 0364 | 0363 | 0362 | 0363 | 0362 | 0361 | 0363 | 0362 | 0363 | 0362 | 0361 | 0363 | 0362 | 0361 | 0363 | | 0362 | |
| ANIMAL ID | 0022 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0029 | 0030 | 0031 | 0032 | 0033 | 0034 | 0035 | 0036 | 0037 | 0038 | 0039 | 0040 | 0041 | 0042 | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 |
| Spleen Pigmentation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | 16 1.6 |
| Thymus Atrophy | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 8 | 22 | 21 3.6 |
| | 1 | 2 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 4 | 4 | 6 | 6 | 3 | 3 | 8 | 8 | 2 | 2 | 2 | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland Hyperplasia, Lobular | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | 21 | 1 1.0 |
| Skin Cyst Epithelial Inclusion | | | | | | + | | | | | | | | | | | | | | | + | 2 | 1 |
| Subcutaneous Tissue, Metaplasia, Osseous | | | | | | X | | | | | | | | | | | | | | | 4 | | 1 4.0 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Nerve Trigeminal | | | | | | | | | | | | | | | + | + | | | | | | 2 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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| | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 6 | 6 | 6 | 6 | 6 | 2 | 6 | 6 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 3 | 2 | 2 | 0 | 5 | 0 | 1 | 1 | 8 | 3 | 3 | 3 | 3 | 3 | 2 | 4 | 1 | 3 | 3 | 3 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 6 | 6 | 8 | 8 | |
| | | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 8 | 8 | 6 | 6 | 6 | |
| | | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 6 | 6 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-------|-------|
| Esophagus | | | | | | | | | | | | | | | | | | | | | | | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Perforation | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Periesophageal Tissue, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Periesophageal Tissue, Necrosis | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Intestine Large, Colon | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Intestine Small, Ileum | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 20 | |
| Basophilic Focus | | | | | | X | | X | | | | | | | | | | | | X | | 3 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | 1 | | | | | | 1 1.0 | |
| Eosinophilic Focus | | | X | | | | | | | | | | | | | | | | | | | 1 | |
| Fatty Change | | | | | | 2 | 2 | | | | | | | | | | | | | | | 2 2.0 | |
| Hepatodiaphragmatic Nodule | | | | | | | | X | | | | | | | | | | | | X | | 2 | |
| Infiltration Cellular, Mononuclear Cell | | | | | | | | | | 1 | | | 1 | 1 | 1 | | | | 1 | 1 | | 9 1.0 | |
| Tension Lipidosis | | | | | | | | | | | | | | | | 2 | | | 4 | | | 3 2.7 | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | 1 | 1 | | | | | 6 1.3 | |
| Bile Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 | | 2 1.0 | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Fat, Fibrosis | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Fat, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 20 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0363 | 0362 | 0362 | 0360 | 0365 | 0360 | 0361 | 0361 | 0368 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0366 | 0364 | 0361 | 0363 | 0363 | | | |
| ANIMAL ID | 00381 | 00382 | 00391 | 00392 | 00401 | 00402 | 00421 | 00422 | 00451 | 00455 | 00455 | 00455 | 00456 | 00461 | 00462 | 00471 | 00472 | 00481 | 00482 | 00486 | 00488 | 00486 | 00486 |
| Pigmentation | 1 | | | 1 | | | 1 | | | 2 | 1 | 1 | | | | 1 | 1 | 1 | 1 | | | | |
| Acinus, Degeneration | | 1 | 1 | 2 | 2 | | 3 | 1 | 1 | 3 | 1 | 1 | 1 | 2 | 3 | 2 | | 2 | 1 | 2 | | | |
| Stomach, Forestomach | | | | | | | + | | | + | | + | | | | | | | | | | | |
| Cyst, Squamous | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | + | | | + | | | | | | | | | | | | | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | | 2 | 1 | 1 | | | 1 | 2 | | 1 | 2 | 1 | | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Cyst Multilocular | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
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Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

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| | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | | 6 | 6 | 6 | 6 | 6 | 2 | 6 | 6 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | | 3 | 2 | 2 | 0 | 5 | 0 | 1 | 1 | 8 | 3 | 3 | 3 | 3 | 3 | 2 | 4 | 1 | 3 | 3 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 6 | 6 | 8 | 8 |
| | | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 8 | 8 | 6 | 6 |
| | | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 6 | 6 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 |

* TOTALS

Rathke's Cleft, Cyst

X

1

Thyroid Gland

+ + + + + + + + + + + + + + + + + + + +

20

Ultimobranchial Cyst

X

X

X

X

X

X

6

C-cell, Hyperplasia

1

1

1

2

1

1

1

2

3

9 1.4

Follicular Cell, Hyperplasia

3

1

2 2.0

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Coagulating Gland

+ + + + + + + + + + + + + + + + + + + +

20

Epididymis

+ + + + + + + + + + + + + + + + + + + +

20

Exfoliated Germ Cell

2

1 2.0

Hypospermia

4

1 4.0

Infiltration Cellular, Lymphocyte

1

1

1

3 1.0

Preputial Gland

+

+

+

3

Hyperkeratosis

4

1 4.0

Infiltration Cellular, Lymphocyte

2

1 2.0

Inflammation, Suppurative

2

3

2 2.5

Duct, Dilatation

3

2

2

3 2.3

Prostate, Dorsal/lateral Lobe

+ + + + + + + + + + + + + + + + + + + +

20

Infiltration Cellular, Lymphocyte

1

1

1

1

5 1.0

Inflammation, Suppurative

1

2

1

2

1

1

2

2

1

2

2

2

2

1

1

2

18 1.5

Prostate, Ventral Lobe

+ + + + + + + + + + + + + + + + + + + +

20

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

A .. Autolysis precludes evaluation

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RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----|
| | 0
3
6
3 | 0
3
6
2 | 0
3
6
2 | 0
3
6
0 | 0
3
6
5 | 0
3
6
0 | 0
3
6
1 | 0
3
6
1 | 0
3
6
8 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | | |
| ANIMAL ID | 0
0
3
8
1 | 0
0
3
8
2 | 0
0
3
9
1 | 0
0
3
9
2 | 0
0
4
0
1 | 0
0
4
0
2 | 0
0
5
4
1 | 0
2
5
4
2 | 0
2
5
5
1 | 0
2
5
5
2 | 0
2
5
6
1 | 0
2
5
6
2 | 0
2
7
0
1 | 0
4
7
0
1 | 0
4
7
1
2 | 0
4
7
1
2 | 0
6
8
2
1 | 0
6
8
2
2 | 0
8
6
6
1 | 0
8
6
6
2 | |
| Infiltration Cellular, Lymphocyte
Inflammation, Suppurative | 1 | | 1 | 1 | | | | 1 | 2 | 1 | 1 | | 1 | | 1 | | | | | 10 | 1.1 |
| | | 1 | 1 | | | | | | | | | | | | 2 | | | 2 | | 4 | 1.5 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Testes
Seminiferous Tubule, Degeneration | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| | 4 | | | | 1 | | 2 | 1 | | 1 | | | 1 | | 1 | | 1 | | 1 | 9 | 1.4 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow
Myeloid Cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| | | | | | | | 2 | | | | | | | | | | | | | 1 | 2.0 |
| Spleen
Pigmentation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| | 2 | 3 | 2 | 2 | 3 | 2 | 1 | 2 | | 2 | 2 | 2 | | 1 | 2 | 3 | | | | 15 | 2.1 |
| Thymus
Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| | 3 | 4 | 4 | 4 | 4 | 4 | 1 | 4 | | | | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 17 | 3.7 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Skeletal Muscle
Foreign Body
Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | 1 | |
| | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
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RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | |
| | 6 | 6 | 6 | 6 | 6 | 2 | 6 | 6 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 0 | |
| | 3 | 2 | 2 | 0 | 5 | 0 | 1 | 1 | 8 | 3 | 3 | 3 | 3 | 3 | 2 | 4 | 1 | 3 | 3 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 6 | 6 | 8 | 8 | 0 | |
| | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 8 | 8 | 6 | 6 | 0 | | |
| | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 0 | | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 0 | | | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

Necrosis 4 1 4.0

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | |
|-----------------------------------|--|--|--|--|--|---|---|--|---|---|-------|
| Lung | | | | | | + | + | | + | 3 | |
| Hemorrhage | | | | | | | | | 4 | | 1 4.0 |
| Infiltration Cellular, Histiocyte | | | | | | 1 | | | | | 1 1.0 |
| Nose | | | | | | + | | | + | 2 | |
| Foreign Body | | | | | | X | | | | | 1 |
| Hemorrhage | | | | | | | | | 4 | | 1 4.0 |
| Inflammation, Suppurative | | | | | | 2 | | | | | 1 2.0 |
| Trachea | | | | | | + | | | + | 2 | |

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Nephropathy | 3 | 1 | 1 | 1 | 3 | | 2 | 1 | 1 | 2 | 1 | | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 18 1.6 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------------|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| SPRAGUE DAWLEY (NCTR) | DAY ON TEST | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 2 | 6 | 6 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | RATS MALE | 3 | 2 | 2 | 0 | 5 | 0 | 1 | 1 | 8 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 4 | 1 | 3 | 3 | 3 |
| | F1 25.0 BPA M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 6 | 6 | 8 | 8 | |
| | | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 6 | 6 |
| | | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 6 | 0 | 1 | 1 | 2 | 2 | 2 | 6 | 6 | 6 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | |
| Cortex, Cyst | | | X | | X | | X | | X | | | | | | | | | | X | X | | 6 |
| Renal Tubule, Cyst | | | X | | X | X | | | | X | X | | X | | | | X | X | | X | | 9 |

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RATS MALE
F1 250.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0363 | 0362 | 0363 | 0363 | 0364 | 0363 | 0360 | 0360 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | |
| ANIMAL ID | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | 2 | | 1 | 2.0 | |
| Clear Cell Focus | | X | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Eosinophilic Focus | | | | | | | | | | | X | | | | | | | | | | | | | 1 | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | X | | | | | | | | X | X | | | | 3 | | |
| Infiltration Cellular, Mononuclear Cell | 1 | | | 1 | 1 | | 1 | | | 1 | 1 | 2 | | | 1 | | 1 | | 1 | 1 | | 1 | 1 | 13 | 1.1 | |
| Tension Lipidosis | | | | | | | | | | | | | | | 2 | | | | 3 | | | 3 | | 3 | 2.7 | |
| Vacuolization Cytoplasmic | 1 | 2 | | 1 | | 1 | | | | 2 | | 1 | | | | 2 | 1 | | 1 | | 2 | 2 | | 11 | 1.5 | |
| Bile Duct, Hyperplasia | | | 2 | | | | 1 | | | | 1 | | | | 1 | | | | 1 | | | | 1 | 6 | 1.2 | |
| Capsule, Fibrosis | | | | | | | | | | | | | | | | | | 2 | | | | | | 1 | 2.0 | |
| Hepatocyte, Necrosis | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 1.0 | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | + | 1 | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Basophilic Focus | | | | | | | | | | | | | | | X | | | | X | | | | | 2 | | |
| Degeneration, Cystic | | | | | | | 2 | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 | 1.0 | |
| Pigmentation | 1 | 1 | 1 | | 1 | | 1 | 1 | 1 | | | 1 | | | | 1 | | | 1 | | 1 | 1 | 1 | 13 | 1.0 | |
| Acinus, Degeneration | 1 | 3 | 1 | 2 | 4 | 2 | 3 | 2 | 2 | 1 | 1 | 3 | 2 | | 4 | 3 | 1 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 23 | 2.1 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0363 | 0362 | 0363 | 0363 | 0364 | 0363 | 0360 | 0360 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | 0363 | |
| ANIMAL ID | 00541 | 00542 | 00545 | 00546 | 00541 | 00542 | 00547 | 00547 | 00547 | 00547 | 00547 | 00548 | 00548 | 00548 | 00548 | 00549 | 00549 | 00549 | 00549 | 00549 | 00549 | 00549 | 00549 | 00549 | |
| Cardiomyopathy | 1 | | 1 | 1 | | 1 | | | 1 | 2 | | 1 | 1 | 3 | 3 | 1 | 4 | 2 | 2 | | 1 | 1 | 1 | 2 | 18 1.6 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Adrenal Cortex Hypertrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | 1 1.0 |
| Vacuolization Cytoplasmic | | | | | | | | | | 2 | | | | 1 | | | | | | | | | | | | 2 1.5 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Parathyroid Gland Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | 5 1.8 |
| Pituitary Gland Pars Distalis, Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | 3 |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 4 1.5 |
| Thyroid Gland Ultimobranchial Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | 5 |
| C-cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 12 1.8 |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
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1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
3
6
3 | 0
3
6
2 | 0
3
6
3 | 0
3
6
3 | 0
3
6
4 | 0
3
6
3 | 0
3
6
0 | 0
3
6
0 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
1 | 0
3
6
4 | 0
3
6
3 | 0
3
6
4 | 0
3
6
4 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
4 | | |
| ANIMAL ID | 0
0
5
4
1 | 0
0
5
4
2 | 0
0
5
4
1 | 0
0
5
5
6 | 0
0
5
6
1 | 0
0
5
6
2 | 0
2
7
0
1 | 0
2
7
0
2 | 0
2
7
1
1 | 0
2
7
1
2 | 0
2
7
2
2 | 0
4
8
6
1 | 0
4
8
6
2 | 0
4
8
6
1 | 0
4
8
7
2 | 0
6
9
6
1 | 0
6
9
6
2 | 0
6
9
6
1 | 0
6
9
6
2 | 0
8
9
7
1 | 0
8
9
7
2 | 0
8
8
0
1 | 0
8
8
0
2 | 0
8
8
1
1 | 0
8
8
1
2 |
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
| Exfoliated Germ Cell | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hypospermia | 4 | | | | | | | | | 4 | | | | | | | | | | | | | | | 2 4.0 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | 1 | | | | | | 1 | | | | | | | | | | 2 1.0 |
| Fat Pad, Epididymal | | | | | | | | | | | | | | + | | | | | | | | | | | 1 |
| Necrosis | | | | | | | | | | | | | | 4 | | | | | | | | | | | 1 4.0 |
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | + | | | 1 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | 2 | | | 1 2.0 |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | 3 | | | 1 3.0 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | 1 | 1 | | 1 | 1 | | 2 | | | | | 1 | 6 1.2 | |
| Inflammation, Suppurative | 1 | 1 | 2 | 1 | 1 | 1 | 2 | 2 | 2 | | 1 | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 2 | | 1 | 2 | 2 | 1 | 22 1.6 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Infiltration Cellular, Lymphocyte | | | | 1 | 1 | 1 | | | | | 1 | 1 | | | | 2 | | 1 | | 1 | | | | 8 1.1 | |
| Inflammation, Suppurative | | | | 1 | | | | | | 1 | | | | | 1 | | | | 2 | 1 | | | | 5 1.2 | |
| Epithelium, Hyperplasia | | | | | | | | | 2 | | | | | | | | | | | | | | | 1 2.0 | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Seminiferous Tubule, Degeneration | 4 | | | 1 | 1 | | 1 | | | 1 | 4 | 1 | | | 1 | | | 1 | | | | | 1 | 10 1.6 | |

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--------------|--|
| | 03063 | 03062 | 03063 | 03063 | 03064 | 03063 | 03060 | 03060 | 03063 | 03063 | 03063 | 03063 | 03063 | 03063 | 03063 | 03063 | 03063 | 03063 | 03063 | 03063 | 03063 | 03063 | 03063 | 03063 | | 03063 | |
| ANIMAL ID | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | 00541 | 00542 | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Spleen Pigmentation | 2 | 1 | 2 | | 2 | 1 | | | 2 | | 2 | 2 | 1 | 1 | 1 | 2 | | 1 | | 2 | | | 1 | 2 | | 24
16 1.6 | |
| Thymus Atrophy | 4 | 4 | 3 | | 3 | 1 | | 2 | 4 | 4 | 3 | 2 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 3 | 2 | 3 | 3 | | 24
22 3.2 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland Hyperplasia, Lobular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24
3 2.0 | |
| Skin Subcutaneous Tissue, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1
1 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |

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|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | | |
| | 6 | 6 | 6 | 6 | 0 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 6 | | |
| | 3 | 3 | 2 | 2 | 1 | 5 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 4 | 3 | 5 | 4 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 5 | 5 | 5 | 7 | 7 | 8 | 8 | | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 1 | 1 | 9 | 9 | | |
| | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 1 | 1 | 4 | 4 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Esophagus | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Ileum | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Mononuclear Cell | | | | | | | | | | | | | | | | | | | | | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | |
| Acinus, Degeneration | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------|
| | 0363 | 0332 | 0332 | 0331 | 0335 | 0331 | 0331 | 0331 | 0331 | 0332 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0334 | 0333 | 0324 | 0323 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0070 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0077 | |
| | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 2 | 3 | 3 | 1 | 1 | 1 | 0001 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 0011 | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Heart
Cardiomyopathy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | 15 | 1.1 |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Adrenal Cortex
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | 1 | 1.0 |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|

| | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|
| Islets, Pancreatic | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Parathyroid Gland
Hyperplasia | M | + | + | + | + | + | + | + | + | + | + | + | 2 | + | + | + | + | + | + | + | 19 | 2 | 2.0 |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Pituitary Gland
Pars Distalis, Cyst
Pars Distalis, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | 1 | 2 |
| | | X | | | | | | | | | | | | | | 1 | | 1 | | | | | 1.0 |

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Thyroid Gland
Ultimobranchial Cyst
C-cell, Hyperplasia
Follicular Cell, Hyperplasia | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 18 | 5 | 7 |
| | | | X | | | | | X | | X | | | X | | X | | | | | | | | 2 |
| | | | | | | 2 | | | | | | | | 4 | 2 | 1 | 1 | 2 | | 2 | | | 2.0 |
| | | | | | | | | | | | | 3 | | | | | | | 3 | | | | 3.0 |

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|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|-----------------|
| | 0363 | 0332 | 0332 | 0331 | 0335 | 0331 | 0331 | 0331 | 0331 | 0332 | 0332 | 0333 | 0333 | 0333 | 0333 | 0333 | 0334 | 0334 | 0335 | 0334 | | |
| ANIMAL ID | 0070 | 0077 | 0077 | 0077 | 0077 | 0077 | 0088 | 0088 | 0088 | 0088 | 0088 | 0088 | 0088 | 0088 | 0088 | 0088 | 0088 | 0088 | 0088 | 0088 | | |
| Coagulating Gland | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 18 | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Fat Pad, Epididymal Necrosis | | | | | | | | | | | | | | | | | | | | | 1 | 1 4.0 |
| Preputial Gland Inflammation, Suppurative Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | 1 | 1 3.0
1 2.0 |
| Prostate, Dorsal/lateral Lobe Infiltration Cellular, Lymphocyte Inflammation, Suppurative | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | 5 1.0
18 1.8 |
| Prostate, Ventral Lobe Infiltration Cellular, Lymphocyte Inflammation, Suppurative | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | 9 1.1
3 1.0 |
| Seminal Vesicle | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 18 | |
| Testes Seminiferous Tubule, Degeneration | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | 5 1.0 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Bone Marrow Myeloid Cell, Hyperplasia | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 18 | 1 2.0 |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----------------|-----|-----|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | | | |
| | 6 | 6 | 6 | 6 | 0 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 6 | | | |
| | 3 | 3 | 2 | 2 | 1 | 5 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 4 | 3 | 5 | 4 | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 5 | 5 | 5 | 7 | 7 | 8 | 8 | | | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 1 | 1 | 9 | 9 | | | | |
| | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 1 | 1 | 4 | 4 | | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | * TOTALS | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | + | + | 2 | |
| Congestion | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | 3 | | 1 | 3.0 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 3 | | 1 | 3.0 |
| Spleen | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 18 | | | |
| Pigmentation | 2 | 2 | 2 | 2 | | 2 | 2 | 2 | 1 | | | 2 | 2 | 1 | 2 | 2 | | 2 | 2 | 15 | 1.9 | | |
| Thymus | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | | | |
| Atrophy | 4 | 4 | 4 | | | 2 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 17 | 3.5 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | 19 | | | |
| Hyperplasia, Lobular | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 |
| Skin | | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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 M .. Missing tissue
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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | | |
| | 6 | 6 | 6 | 6 | 0 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 6 | | |
| | 3 | 3 | 2 | 2 | 1 | 5 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 2 | 4 | 3 | 5 | 4 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 5 | 5 | 5 | 7 | 7 | 8 | 8 | | |
| | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 1 | 1 | 9 | 9 | | |
| | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 1 | 1 | 4 | 4 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Spinal Cord, Lumbar
Axon, Degeneration | | | | | | | | | | | | | | | | | | | | + | 1 | 1 2.0 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | + | 1 | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|--|--|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|---|----------|--------------|
| Lung | | | | + | A | | | | | | | | | | | | | | + | 2 | |
| Congestion | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Nose | | | | | | | | | | | | | | | | | | | | A | 0 |
| Trachea | | | | | | | | | | | | | | | | | | | | A | 0 |

SPECIAL SENSES SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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Experiment Number: 10034 - 03
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | DAY ON TEST | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 |
| | | 6 | 6 | 6 | 6 | 0 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 6 |
| | | 3 | 3 | 2 | 2 | 1 | 5 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 2 | 4 | 3 | 5 | 4 | 4 |
| | F1 2500.BPA M | | | | | | | | | | | | | | | | | | | | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 5 | 5 | 5 | 7 | 7 | 8 | 8 | 8 |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 9 | 9 |
| | | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 4 | 4 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|--------------|
| Kidney | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Nephropathy | 1 | 1 | 1 | 1 | | 2 | | 2 | | 1 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 4 | | 2 | 16 1.6 | |
| Cortex, Cyst | | | X | | | | | | | | | X | | | X | X | | | | | | 4 |
| Pelvis, Dilatation | | | | | | | | | 1 | | | | | | | | | | | | | 1 1.0 |
| Renal Tubule, Cyst | | X | | X | | | | | | | | X | | | | X | | | | | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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 2) Mild 4) Marked

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|-----------------------|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | SPRAGUE DAWLEY (NCTR) | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| RATS MALE | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| F1 25000 BPA M | 3 | 0 | 3 | 2 | 4 | 4 | 2 | 1 | 3 | 1 | 2 | 9 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 4 | 5 | 5 | 5 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------------------|--------|
| Esophagus | | | | | | | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Intestine Large, Colon | | | | | | | | | | | | | | | | | | | | | | | | | | | A | 0 |
| Intestine Small, Ileum | | | | | | | | | | | | | | | | | | | | | | | | | | | A | 0 |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Infiltration Cellular, Mononuclear Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1 | 8 1.0 |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2 | 8 1.5 |
| Bile Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Granuloma | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1 1 | 11 1.3 |
| Acinus, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 1 1 4 3 3 4 3 2 | 19 2.5 |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 1 |

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

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Experiment Number: 10034 - 03

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Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--------|
| | 0363 | 0363 | 0363 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | | |
| ANIMAL ID | 00861 | 00862 | 00867 | 00872 | 00881 | 00882 | 00882 | 00882 | 00882 | 00882 | 00882 | 00882 | 00882 | 00882 | 00882 | 00882 | 00882 | 00882 | 00882 | 00882 | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Cardiomyopathy | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 4 | | | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 20 1.4 |
| Pigmentation | | | | | | | | 1 | | | | | | | | | | | | | | 1 1.0 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 | | 1 1.0 |
| Hypertrophy | | 1 | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Vacuolization Cytoplasmic | 3 | | | | | | | | | | | | | | | | 1 | | | | | 2 2.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Fibrosis | | | | | | | | | | | | | | | | | 2 | | | | | 1 2.0 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | 21 | |
| Hyperplasia | | | | 1 | | | | | | | | | | | | 2 | | | | | | 2 1.5 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Pars Distalis, Cyst | | X | | | | | | | | | | | | | | | X | | | | | 2 |
| Pars Distalis, Cyst Multilocular | | | | X | | | | | | | | | | | | | | | | | | 1 |
| Pars Distalis, Hyperplasia | | | | | | | 1 | | | | | | | | 1 | 2 | 2 | | | | | 4 1.5 |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | X | | | | 1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | 21 | |
| Ultimobranchial Cyst | X | | | | | | | | | | X | | | | X | X | | | X | X | X | 7 |
| C-cell, Hyperplasia | 1 | | 2 | | | | 2 | 2 | | 1 | | | | 1 | | 3 | | 1 | | 1 | 1 | 10 1.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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BLANK .. Not examined microscopically

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 Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 3 | 0 | 3 | 2 | 4 | 4 | 2 | 1 | 3 | 1 | 2 | 9 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 4 | 5 | |
| F1 25000 BPA M | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 |
| | ANIMAL ID | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 4 | 4 | 4 | 5 | 5 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 21 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Exfoliated Germ Cell | | | | | | | 1 | 1 | | | | 1 | | | | | | 1 | | | 1 | | 6 1.0 |
| Hypospermia | | | | | | | | | | | | 4 | | | | | | | 4 | | | | 2 4.0 |
| Infiltration Cellular, Lymphocyte | | | | | | | 1 | | | | | 1 | 1 | | | | | | 1 | 1 | | | 5 1.0 |
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | 7 1.3 |
| Inflammation, Suppurative | 2 | 2 | 2 | 2 | 1 | 1 | 2 | | 2 | 1 | 1 | | 2 | 1 | 2 | 2 | 1 | | 3 | 2 | 2 | 1 | 19 1.7 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Infiltration Cellular, Lymphocyte | | | | 1 | | | | | 1 | 1 | 1 | 1 | | | 1 | | | | | | | 2 | 8 1.1 |
| Inflammation, Suppurative | | | | | 1 | | | | | | | | | | | | | | | | | | 1 1.0 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 21 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Seminiferous Tubule, Degeneration | | | 1 | | | | 2 | 1 | | | | 4 | | 2 | | 1 | | | 2 | 4 | | 2 | 9 2.1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|-------|-----------------|
| | 0363 | 0360 | 0363 | 0362 | 0364 | 0364 | 0362 | 0361 | 0363 | 0361 | 0362 | 0369 | 0363 | 0363 | 0363 | 0363 | 0363 | 0362 | 0362 | 0364 | | | 0365 |
| | 00861 | 00886 | 00888 | 00887 | 00881 | 00882 | 00800 | 00833 | 00833 | 00800 | 00800 | 00833 | 00833 | 00855 | 00855 | 00855 | 00855 | 00855 | 00877 | 00877 | 00877 | 00877 | |
| | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-------------------------------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Hematopoietic Cell Proliferation Pigmentation | 1 | 3 | 2 | 2 | | | | 2 | 1 | 1 | 1 | | | 2 | | | | 1 | 1 | 2 | 2 | | | 2 2.0
13 1.6 |
| Thymus Atrophy | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | 21 | 20 3.7 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|
| Mammary Gland Fibrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | 1 4.0 |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 03
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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
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7 | 0
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1 | 0
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2 | 0
7
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1 | 0
9
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2 | 0
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6
9
2 | 0
9
6
9
0 | 0
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6
9
1 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 1 | 3 | 2 | 2 | | 1 | 2 | 1 | 1 | 1 | 3 | 1 | 1 | | 2 | 2 | 1 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | 2 | | | | 3 | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | 2 | | | | | | | | 2 | | | | | 2 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | 2 | | | | | | | | | | | | 2 | 2 | | 2 | | | 2 | | 2 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | 1 | 1 | | | 2 | | | | | | | | 2 | | | | | | 3 | 1 | 1 |
| Thyroid Gland | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ultimobranchial Cyst | | | X | X | | | | | | | | | | | | | | | | | | | | |
| C-cell, Hyperplasia | 2 | | | 1 | | | | | | | | | 1 | | | 1 | | 3 | 1 | | | | | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | 3 | | | | 3 | 3 | | 3 |

GENERAL BODY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
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 2) Mild 4) Marked

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------|--------------------|
| | 0
3 | 0
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3 | 0
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3 | 0
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3 | 0
3 | 0
3 | | |
| | 6 | 6 | 6 | 6 | 1 | 6 | 4 | 6 | 6 | 6 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 6 | 6 | |
| | 3 | 3 | 2 | 2 | 9 | 2 | 7 | 0 | 2 | 2 | 4 | 2 | 2 | 2 | 3 | 2 | 5 | 4 | 4 | 3 | 3 | 3 | 9 | 3 | 5 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | | |
| | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 9 | 9 | 0 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Exfoliated Germ Cell | | | | | | | | 1 | | | | | | | 2 | | | 1 | | | 1 | | | |
| Hypospermia | | | | | | | | | | 4 | | | | | 4 | | | | | | | | | 4 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Preputial Gland | | + | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | 2 | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | | 2 | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrosis | | | | | | | | | | | | | | | 2 | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | 1 | 1 | | | | | 1 | | | | 1 | 1 | | 1 | | | 1 | | | | | 1 | 1 |
| Inflammation, Suppurative | 2 | 1 | 1 | 2 | | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 4 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Lymphocyte | | 1 | | | 1 | 1 | | | 1 | | | 1 | 1 | 1 | 1 | 2 | | 1 | | 1 | | | 2 | 1 |
| Inflammation, Suppurative | | 1 | | | | | | | | | | 1 | | | | | | 1 | | | | | | 2 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Seminiferous Tubule, Degeneration | 1 | | 1 | | | | | 2 | | | 4 | 1 | | | 4 | | 1 | 1 | 1 | 1 | | 1 | 4 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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 2) Mild 4) Marked

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 1 Year Animals

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 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|--|----------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 6 | 6 | 6 | 6 | 1 | 6 | 4 | 6 | 6 | 6 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | F1 0.05 EE2 M | 3 | 3 | 2 | 2 | 9 | 2 | 7 | 0 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 3 | 2 | 5 | 4 | 4 | 3 | 3 | 3 | 3 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | |
| | | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 9 | 9 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 0 | |

Myeloid Cell, Hyperplasia

4

Lymph Node, Mandibular
Hyperplasia, Lymphoid

+
3

Lymph Node, Mesenteric
Degeneration, Cystic
Hyperplasia, Lymphoid

+
3
2

Spleen
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Pigmentation

+ + + + + + A + + + + + + + + + + + + + + + + + + +
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Thymus
Atrophy

+
4 3 4 4 4 4 3 4 4 2 4 3 4 3 4 4 4 4 2 4 3 4 2 4 4

INTEGUMENTARY SYSTEM

Mammary Gland
Hyperplasia, Lobular

+
2
1 1

Skin
Abscess
Foreign Body

+
4
X

MUSCULOSKELETAL SYSTEM

Bone, Femur

+ +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | | |
| | 6 | 6 | 6 | 6 | 1 | 6 | 4 | 6 | 6 | 6 | 2 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 0 | |
| | 3 | 3 | 2 | 2 | 9 | 2 | 7 | 0 | 2 | 2 | 4 | 2 | 2 | 2 | 2 | 3 | 2 | 5 | 4 | 4 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 0 | |
| | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 9 | 9 | 9 | 0 | 0 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 0 | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | | + | + | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | | | + | + |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | | | + | + |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | | | + | + |
| Spinal Cord, Lumbar
Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | | | | + | + |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|--|--|--|--|--|--|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| Lung | | | | | | | + | + | | | | | | | | | | | | | | | | | | | + | |
| Nose
Autolysis | | | | | | | + | + | | | | | | | | | | | | | | | | | | | | + |
| | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | |
| Trachea | | | | | | | + | A | | | | | | | | | | | | | | | | | | | + | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 4 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 0 | |
| | | 2 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | | | | |
|---|--|---|--|---------------|
| Esophagus | | | | 4 |
| Intestine Large, Colon | | | | 3 |
| Intestine Small, Ileum | | | | 3 |
| Liver | | + | | 26 |
| Cholangiofibrosis | | | | 1 2.0 |
| Degeneration, Cystic | | | | 1 1.0 |
| Fatty Change | | | | 1 3.0 |
| Hepatodiaphragmatic Nodule | | | | 4 |
| Infiltration Cellular, Mononuclear Cell | | | | 13 1.0 |
| Mixed Cell Focus | | | | 1 |
| Tension Lipidosis | | | | 1 3.0 |
| Vacuolization Cytoplasmic | | | | 2 1.5 |
| Bile Duct, Hyperplasia | | | | 3 1.3 |
| Pancreas | | + | | 26 |
| Basophilic Focus | | | | 1 |
| Cyst Multilocular | | | | 1 |
| Pigmentation | | 1 | | 10 1.4 |
| Acinus, Degeneration | | 2 | | 18 2.4 |
| Stomach, Forestomach | | | | 4 |
| Stomach, Glandular | | | | 4 |

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | |
|--|-------------|---|--|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | | |
| | | 3 | | |
| | | 6 | | |
| | | 4 | | |
| | ANIMAL ID | 0 | | |
| | | 9 | | |
| | | 2 | | |
| | | 0 | | |
| | | 2 | | |
| | | | | * TOTALS |

| | | | | |
|----------------|---|--|--|---------------|
| Blood Vessel | + | | | 26 |
| Heart | + | | | 26 |
| Cardiomyopathy | 1 | | | 24 1.5 |

ENDOCRINE SYSTEM

| | | | | |
|------------------------------|---|--|--|--------------|
| Adrenal Cortex | + | | | 26 |
| Hyperplasia | | | | 2 2.5 |
| Vacuolization Cytoplasmic | | | | 3 2.0 |
| Adrenal Medulla | + | | | 26 |
| Islets, Pancreatic | + | | | 26 |
| Parathyroid Gland | + | | | 26 |
| Hyperplasia | | | | 6 2.0 |
| Pituitary Gland | + | | | 26 |
| Pars Distalis, Cyst | | | | 3 |
| Pars Distalis, Hyperplasia | | | | 7 1.6 |
| Thyroid Gland | + | | | 25 |
| Ultimobranchial Cyst | X | | | 3 |
| C-cell, Hyperplasia | 2 | | | 7 1.6 |
| Follicular Cell, Hyperplasia | | | | 4 3.0 |

GENERAL BODY SYSTEM

| | | | | |
|------|--|--|--|--|
| NONE | | | | |
|------|--|--|--|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 4 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 0 | |
| | | 2 | |
| | | | * TOTALS |

GENITAL SYSTEM

| | | | |
|-----------------------------------|---|----|--------|
| Coagulating Gland | + | 26 | |
| Epididymis | + | 26 | |
| Exfoliated Germ Cell | | | 4 1.3 |
| Hypospermia | | | 3 4.0 |
| Infiltration Cellular, Lymphocyte | | | 1 1.0 |
| Preputial Gland | | 1 | |
| Inflammation, Suppurative | | | 1 2.0 |
| Duct, Dilatation | | | 1 2.0 |
| Prostate, Dorsal/lateral Lobe | + | 26 | |
| Fibrosis | | | 1 2.0 |
| Infiltration Cellular, Lymphocyte | | | 9 1.0 |
| Inflammation, Suppurative | 1 | | 25 1.6 |
| Prostate, Ventral Lobe | + | 26 | |
| Infiltration Cellular, Lymphocyte | | | 13 1.2 |
| Inflammation, Suppurative | | | 4 1.3 |
| Seminal Vesicle | + | 26 | |
| Testes | + | 26 | |
| Seminiferous Tubule, Degeneration | | | 12 1.8 |

HEMATOPOIETIC SYSTEM

| | | | |
|-------------|---|----|--|
| Bone Marrow | + | 26 | |
|-------------|---|----|--|

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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | | DAY ON TEST | | |
|---|---|-------------|----|-----------------|
| | | ANIMAL ID | | |
| | | 0 | | |
| | | 3 | | |
| | | 6 | | |
| | | 4 | | |
| | | 0 | | |
| | | 9 | | |
| | | 2 | | |
| | | 0 | | |
| | | 2 | | |
| | | | | * TOTALS |
| Myeloid Cell, Hyperplasia | | | 1 | 4.0 |
| Lymph Node, Mandibular
Hyperplasia, Lymphoid | | | 1 | 3.0 |
| Lymph Node, Mesenteric
Degeneration, Cystic
Hyperplasia, Lymphoid | | | 1 | 3.0 |
| | | | 1 | 2.0 |
| Spleen
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Pigmentation | + | | 25 | 2.0 |
| | | | 1 | 2.0 |
| | | | 18 | 1.7 |
| Thymus
Atrophy | + | | 26 | |
| | 4 | | 24 | 3.5 |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland
Hyperplasia, Lobular | + | | 26 | 1.3 |
| | | | 3 | |
| Skin
Abscess
Foreign Body | | | 1 | 4.0 |
| | | | 1 | |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone, Femur | + | | 26 | |

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 Route: GAVAGE
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 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 4 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 0 | |
| | | 2 | |
| | | | * TOTALS |

NERVOUS SYSTEM

| | | | | | | |
|---|---|--|--|----|---|-----|
| Brain, Brain Stem | + | | | 26 | | |
| Brain, Cerebellum | + | | | 26 | | |
| Brain, Cerebrum | + | | | 26 | | |
| Nerve Trigeminal | | | | 2 | | |
| Peripheral Nerve, Sciatic | | | | 2 | | |
| Peripheral Nerve, Tibial | | | | 2 | | |
| Spinal Cord, Cervical | | | | 2 | | |
| Spinal Cord, Lumbar
Axon, Degeneration | | | | 2 | 1 | 2.0 |
| Spinal Cord, Thoracic | | | | 2 | | |

RESPIRATORY SYSTEM

| | | | | | | |
|-------------------|--|--|--|---|---|-----|
| Lung | | | | 4 | | |
| Nose
Autolysis | | | | 4 | 1 | 4.0 |
| Trachea | | | | 3 | | |

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 I .. Insufficient tissue
 M .. Missing tissue
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 BLANK .. Not examined microscopically

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 Test Type: CHRONIC
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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 4 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 0 | |
| | | 2 | |
| | | | * TOTALS |

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

| | | | | | |
|--------------------|---|---|--|-----------|---------------|
| Kidney | + | | | 26 | |
| Casts Protein | | | | | 1 1.0 |
| Nephropathy | | 1 | | | 23 1.7 |
| Cortex, Cyst | | | | | 3 |
| Renal Tubule, Cyst | | | | | 10 |
| Urinary Bladder | | | | 1 | |
| Lumen, Dilatation | | | | | 1 4.0 |

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 + .. Tissue examined microscopically
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 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
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CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 1 | 2 | | 3 | 3 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | 1 | 3 | | 1 | 2 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | 2 | | | | | | | | | | 2 | | | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | 2 | | | | | | | | | | | 1 | | | | | | | | | | | 3 | 2 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pars Distalis, Cyst | | | X | | | | | | | | | | X | | | | | | | | | | | | X |
| Pars Distalis, Hyperplasia | | | | | | 2 | | | | | | | | | | | | | | | | | 1 | | |
| Rathke's Cleft, Cyst | | | | | | | | | | | | X | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + |
| Ultimobranchial Cyst | | | | X | X | | | | | X | | | | | X | | | | | | | | X | X | X |
| C-cell, Hyperplasia | 2 | | | 1 | | | | | | 1 | | | | | | | | | | | | | 2 | 1 | 2 |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 | |

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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 6 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 1 | 3 | 6 | 6 | 6 | 6 | 6 | | |
| | 3 | 7 | 3 | 3 | 3 | 3 | 2 | 2 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | 2 | 6 | 8 | 5 | 2 | 1 | 5 | 3 | 4 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | | |
| | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 4 | 4 | 5 | 5 | 6 | 6 | 3 | 3 | 4 | 4 | 7 | 7 | 8 | 8 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + |
| Ductus Deferens | | | | | | | | | | | | | | | | | | | + | | | | | | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | 4 | | | | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Exfoliated Germ Cell | 1 | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Hypospermia | | | | | | | | | 4 | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | 1 | | | | | 1 | | | | | | 1 | | | | |
| Fat Pad, Epididymal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Lymphocyte | 1 | | 1 | 1 | 1 | | | | | 2 | 1 | 1 | 1 | | | | | 1 | 1 | | | | | 1 | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
3
6
3 | 0
3
4
7 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
2 | 0
3
6
2 | 0
3
6
4 | 0
3
6
4 | 0
3
6
4 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
2 | 0
3
6
2 | 0
3
6
1 | 0
3
6
3 | 0
3
6
6 | 0
3
6
2 | 0
3
6
1 | 0
3
6
5 | | | |
| | 0
1
1
2
1 | 0
1
1
2
1 | 0
1
1
3
1 | 0
1
1
3
2 | 0
1
1
4
1 | 0
1
1
8
1 | 0
3
2
8
2 | 0
3
2
9
1 | 0
3
2
9
1 | 0
3
2
9
0 | 0
3
2
4
1 | 0
3
5
4
1 | 0
3
5
4
1 | 0
3
5
4
1 | 0
3
5
4
1 | 0
3
5
6
1 | 0
3
5
6
2 | 0
3
5
4
1 | 0
3
7
4
1 | 0
3
7
4
1 | 0
3
7
4
1 | 0
3
7
4
2 | 0
3
9
7
1 | 0
3
9
7
2 | 0
3
9
7
1 | 0
3
9
8
1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Inflammation, Suppurative | 1 | 1 | | 1 | | | | | | 1 | | | | | 1 | | | | | | | | | | | | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + |
| Testes
Seminiferous Tubule, Degeneration | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Spleen
Pigmentation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + |
| Thymus
Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | M | + | + | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland
Hyperplasia, Lobular | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0
3
6
3 | 0
3
4
7 | 0
3
6
3 | 0
3
6
3 | 0
3
6
3 | 0
3
6
2 | 0
3
6
2 | 0
3
6
4 | 0
3
6
4 | 0
3
6
4 | 0
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3 | 0
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3 | 0
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3 | 0
3
6
3 | 0
3
6
2 | 0
3
6
2 | 0
2
6
8 | 0
3
6
5 | 0
3
6
2 | 0
3
6
1 | 0
3
6
5 | 0
3
6
3 | 0
3
6
3 | 0
3
6
4 | males
(cont...) |
| | ANIMAL ID | 0
1
1
2
1 | 0
1
1
2
1 | 0
1
1
3
2 | 0
1
1
3
4 | 0
1
1
4
1 | 0
3
2
8
2 | 0
3
2
8
1 | 0
3
2
9
2 | 0
3
2
9
1 | 0
3
2
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4 | 0
3
2
0
4 | 0
3
2
4
4 | 0
3
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4 | 0
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4 | 0
3
2
4
4 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ventricle, Dilatation | | | | | | | | 2 | 1 | | | | | | | | | | | | | | | | | |
| Nerve Trigeminal | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Sciatic | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Tibial | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Cervical | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Lumbar | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Axon, Degeneration | 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Thoracic | + | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | + | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Autolysis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | + | | | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------------------|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | | 6 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 1 | 3 | 6 | 6 | 6 | 6 | 6 | | |
| | | 3 | 7 | 3 | 3 | 3 | 3 | 2 | 2 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 2 | 2 | 6 | 8 | 5 | 2 | 1 | 5 | 3 | | 4 |
| F1 0.50 EE2 M | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | males
(cont...) | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 7 | 7 | | 8 |
| | | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 6 | 3 | 3 | 4 | 4 | 7 | 7 | | 8 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + |
| Nephropathy | 1 | 2 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 1 | | 2 | 1 | 3 | 1 | | | 2 | 2 | 1 | 3 | 1 | 1 |
| Cortex, Cyst | | | | | X | | X | | | | | | | | | | | | | X | | | X | X | |
| Renal Tubule, Cyst | | | | | X | | | | X | | | | | | | X | | | | | | | | X | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
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 1 Year Animals

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 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | ANIMAL ID | | | |
|---|-------------|-----------|--|-----------------|--|
| | | | | | |
| | 0 | | | | |
| | 3 | | | | |
| | 6 | | | | |
| | 5 | | | | |
| | 0 | | | | |
| | 9 | | | | |
| | 2 | | | | |
| | 8 | | | | |
| | 2 | | | | |
| | | | | * TOTALS | |

ALIMENTARY SYSTEM

| | | | | |
|--|----------|--|-----------|---------------|
| Esophagus | | | 3 | |
| Intestine Large, Colon | | | 0 | |
| Intestine Small, Ileum | | | 0 | |
| Intestine Small, Jejunum
Diverticulum | | | 1 | 1 |
| Liver | + | | 26 | |
| Clear Cell Focus | | | | 2 |
| Degeneration, Cystic | | | | 1 1.0 |
| Fatty Change | 3 | | | 4 2.8 |
| Hepatodiaphragmatic Nodule | | | | 4 |
| Infiltration Cellular, Mononuclear Cell | | | | 5 1.0 |
| Tension Lipidosis | | | | 2 2.5 |
| Vacuolization Cytoplasmic | | | | 4 1.3 |
| Bile Duct, Cyst | | | | 1 |
| Bile Duct, Hyperplasia | | | | 4 1.0 |
| Pancreas | + | | 25 | |
| Pigmentation | | | | 8 1.3 |
| Acinus, Degeneration | 1 | | | 21 2.1 |
| Stomach, Forestomach | | | 3 | |
| Stomach, Glandular | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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 1 Year Animals

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 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 5 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

CARDIOVASCULAR SYSTEM

| | | | |
|----------------|---|----|--------|
| Blood Vessel | + | 26 | |
| Heart | + | 26 | |
| Cardiomyopathy | 3 | | 23 1.6 |

ENDOCRINE SYSTEM

| | | | |
|-----------------------------------|---|----|-------|
| Adrenal Cortex | + | 26 | |
| Accessory Adrenal Cortical Nodule | | | 1 |
| Vacuolization Cytoplasmic | | | 3 1.7 |
| Adrenal Medulla | + | 26 | |
| Islets, Pancreatic | + | 26 | |
| Parathyroid Gland | + | 26 | |
| Hyperplasia | | | 4 2.0 |
| Pituitary Gland | + | 26 | |
| Pars Distalis, Cyst | | | 3 |
| Pars Distalis, Hyperplasia | | | 2 1.5 |
| Rathke's Cleft, Cyst | | | 1 |
| Thyroid Gland | + | 24 | |
| Ultimobranchial Cyst | X | | 8 |
| C-cell, Hyperplasia | 2 | | 9 1.6 |
| Follicular Cell, Hyperplasia | | | 2 3.0 |

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Bisphenol A

CAS Number: 80-05-7

1 Year Animals

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Lab: NCTR

| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 5 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | |
|-----------------------------------|---|----|--------|
| Coagulating Gland | + | 24 | |
| Ductus Deferens | | 1 | |
| Lumen, Dilatation | | | 1 4.0 |
| Epididymis | + | 26 | |
| Exfoliated Germ Cell | | | 2 1.0 |
| Hypospermia | | | 1 4.0 |
| Infiltration Cellular, Lymphocyte | | | 3 1.0 |
| Fat Pad, Epididymal | | 1 | |
| Necrosis | | | 1 4.0 |
| Preputial Gland | | 2 | |
| Inflammation, Suppurative | | | 1 4.0 |
| Duct, Dilatation | | | 1 3.0 |
| Prostate, Dorsal/lateral Lobe | + | 26 | |
| Degeneration, Cystic | | | 1 2.0 |
| Infiltration Cellular, Lymphocyte | | | 4 1.0 |
| Inflammation, Suppurative | 2 | | 25 1.5 |
| Prostate, Ventral Lobe | + | 26 | |
| Infiltration Cellular, Lymphocyte | | | 13 1.1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | |
|---|-------------|--|-----------------|
| | ANIMAL ID | | |
| | 0 | | |
| | 3 | | |
| | 6 | | |
| | 5 | | |
| | 0 | | |
| | 9 | | |
| | 2 | | |
| | 8 | | |
| | 2 | | |
| | | | * TOTALS |
| Inflammation, Suppurative | | | 5 1.0 |
| Seminal Vesicle | + | | 24 |
| Testes | + | | 25 |
| Seminiferous Tubule, Degeneration | | | 6 1.0 |
| HEMATOPOIETIC SYSTEM | | | |
| Bone Marrow | + | | 26 |
| Spleen | + | | 25 |
| Pigmentation | | | 18 1.8 |
| Thymus | + | | 24 |
| Atrophy | 4 | | 21 3.2 |
| INTEGUMENTARY SYSTEM | | | |
| Mammary Gland | + | | 25 |
| Hyperplasia, Lobular | | | 2 1.0 |
| MUSCULOSKELETAL SYSTEM | | | |
| Bone, Femur | + | | 26 |
| NERVOUS SYSTEM | | | |
| Brain, Brain Stem | + | | 26 |
| Brain, Cerebellum | + | | 26 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | ANIMAL ID | | |
|---|------------------|-----------|-----------------------|--|
| | 0
3
6
5 | | 0
9
2
8
2 | |
| | | | * TOTALS | |

| | | | | |
|---------------------------|---|-----------|----------|------------|
| Brain, Cerebrum | + | 26 | | |
| Ventricle, Dilatation | | | 2 | 1.5 |
| Nerve Trigeminal | | 1 | | |
| Peripheral Nerve, Sciatic | | 1 | | |
| Peripheral Nerve, Tibial | | 1 | | |
| Spinal Cord, Cervical | | 1 | | |
| Spinal Cord, Lumbar | | 1 | | |
| Axon, Degeneration | | | 1 | 1.0 |
| Spinal Cord, Thoracic | | 1 | | |

RESPIRATORY SYSTEM

| | | | | |
|-----------------------------------|--|----------|----------|------------|
| Lung | | 3 | | |
| Hemorrhage | | | 1 | 2.0 |
| Infiltration Cellular, Histiocyte | | | 1 | 2.0 |
| Nose | | 3 | | |
| Autolysis | | | 1 | 4.0 |
| Trachea | | 2 | | |

SPECIAL SENSES SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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|--|-------------|---|-----------------|
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RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 5 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

URINARY SYSTEM

| | | | | |
|--------------------|---|--|----|--------|
| Kidney | + | | 25 | |
| Nephropathy | 4 | | | 23 1.6 |
| Cortex, Cyst | X | | | 6 |
| Renal Tubule, Cyst | | | | 4 |

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RATS MALE
F1 Veh.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 2 | |
| | 6 | 6 | 6 | 5 | 7 | 6 | 6 | 5 | 2 | 1 | 6 | 5 | 6 | 5 | 5 | 4 | 6 | 6 | 6 | 6 | 1 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | 2 | |
| | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 5 | 5 | 3 | 3 | 2 | |
| | 6 | 6 | 7 | 7 | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 5 | 5 | 9 | 9 | 1 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Hypospermia | | | | | | | | | | 4 | | | | | | | | | | | | 1 4.0 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | 1 | | | | | | | | | 1 1.0 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Infiltration Cellular, Lymphocyte | 1 | 1 | 1 | | 1 | | | | 1 | | | 1 | 1 | | | 1 | 1 | | | | | 9 1.0 |
| Inflammation, Suppurative | 1 | 1 | 2 | 2 | 2 | | | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | | 18 1.7 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Infiltration Cellular, Lymphocyte | 1 | 1 | 1 | | 1 | | | 1 | 1 | 2 | | 1 | 1 | | | | | | | | | 9 1.1 |
| Inflammation, Suppurative | | | | 1 | | | | | | | | | | | | 1 | | 2 | | | | 3 1.3 |
| Epithelium, Hyperplasia | | | | | | | | | | 2 | | | | | | | | | | | | 1 2.0 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Seminiferous Tubule, Degeneration | | | | | | | | 1 | | 1 | 4 | | | | 1 | 1 | | | | 1 | | 6 1.5 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Pigmentation | 3 | 1 | 2 | 1 | | | | | | | | 2 | 2 | 2 | | 1 | 2 | 1 | 3 | 2 | | 12 1.8 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |

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 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
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RATS MALE
F1 Veh.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 6 | 6 | 6 | 5 | 7 | 6 | 6 | 5 | 2 | 1 | 6 | 5 | 6 | 5 | 5 | 4 | 6 | 6 | 6 | 6 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | | |
| | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 5 | 5 | 3 | 3 | | |
| | 6 | 6 | 7 | 7 | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 5 | 5 | 9 | 9 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------|------------|
| Atrophy | | | | | | | | | | | | | | | | | | | | | 18 | 3.7 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | 19 |
| Skin | | | | | | | | | | | | | | | + | | | | | | 1 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|------------|
| Lung | | | | | | | | | | | | | | | | | | | | | 1 | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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RATS MALE
F1 Veh.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
3
6
6 | 0
3
6
6 | 0
3
6
6 | 0
3
6
5 | 0
3
6
7 | 0
3
6
6 | 0
3
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6 | 0
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5 | 0
3
6
2 | 0
3
6
1 | 0
3
6
6 | 0
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5 | 0
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5 | 0
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5 | 0
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6
4 | 0
3
6
6 | 0
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6
6 | 0
3
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6 | 0
3
6
6 | |
| ANIMAL ID | 0
1
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1 | 0
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6
2 | 0
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2
7
1 | 0
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7
2 | 0
3
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2
1 | 0
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2
2 | 0
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1 | 0
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2 | 0
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4
1 | 0
3
4
4
2 | 0
3
5
4
8 | 0
3
5
4
8 | 0
3
5
5
9 | 0
3
5
5
9 | 0
3
5
6
0 | 0
3
5
6
0 | 0
3
5
6
5 | 0
3
5
7
5 | 0
3
5
7
5 | 0
3
9
3
9 | 0
3
9
3
9 |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Casts Protein | | | | 1 | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic Active | | | | | | | | | 1 | | | | | | | | | | | | 1 1.0 |
| Nephropathy | 2 | 2 | 2 | | 1 | 2 | 2 | 1 | 3 | 2 | 1 | 2 | 2 | 3 | 3 | 1 | 2 | 1 | 2 | 2 | 19 1.9 |
| Cortex, Cyst | | | | | | | | X | | | | | | | | | X | | | | 2 |
| Pelvis, Dilatation | | | | | | | | | | 4 | | | | | | | | | | | 1 4.0 |
| Renal Tubule, Cyst | | | | | | | | X | X | | X | | | | | | X | X | | | 5 |

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| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | F1 2.5 StDose M | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | ANIMAL ID | 6 | 6 | 6 | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 7 | 7 | 2 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 5 | 5 | | |
| | | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 4 | 4 | 5 | 5 | 8 | 8 | 0 | 0 | | | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Intestine Small, Jejunum | + | | | | | | | | | | | | | | | | | | | | 1 | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Basophilic Focus | | | | | X | | | X | | | | | | | | | | | | | | | 2 |
| Degeneration, Cystic | | | | 1 | | | | | | | 1 | | | 1 | 1 | | | | | | | | 4 1.0 |
| Fatty Change | | | | | | | | | | | | | | | | | | 2 | | | | | 1 2.0 |
| Hepatodiaphragmatic Nodule | | | | | X | | | | | X | | | | | | | | | | | | | 2 |
| Infiltration Cellular, Mononuclear Cell | 1 | 1 | | 1 | 1 | | 1 | | 1 | 1 | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 13 1.0 |
| Pigmentation | | | | | | | | | | | | 1 | | | | | | | | | | | 1 1.0 |
| Vacuolization Cytoplasmic | | | | | | | | | | 1 | 1 | | 1 | 2 | | 2 | | | | | | | 5 1.4 |
| Bile Duct, Hyperplasia | 1 | | | 1 | | | | | | | | 1 | 2 | 1 | 1 | 1 | 1 | | | | 1 | | 9 1.1 |
| Biliary Tract, Fibrosis | | | | | | | | | | | | 1 | | | | | | | | | | | 1 1.0 |
| Hepatocyte, Necrosis | | | | 1 | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Edema | | | | | | | | 3 | | | | | | | | | | | | | | | 1 3.0 |
| Pigmentation | | | | 1 | 1 | | | | 1 | 1 | 1 | | | 1 | 1 | 1 | | | | | | | 8 1.0 |
| Acinus, Degeneration | 1 | 4 | 2 | 3 | 2 | 4 | 4 | 2 | 1 | 3 | | 2 | 1 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | | 19 2.4 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Cardiomyopathy | 1 | 1 | 1 | 3 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 4 | 3 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | | 20 1.7 |
| Ventricle, Dilatation | | | | | | | | | | 3 | | | | | | | | | | | | | 1 3.0 |

ENDOCRINE SYSTEM

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RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|-------|
| | 0
3
6
6 | 0
3
6
6 | 0
3
6
6 | 0
3
6
5 | 0
3
6
5 | 0
3
6
4 | 0
3
6
4 | 0
3
6
4 | 0
3
6
5 | 0
3
6
4 | 0
3
6
6 | 0
3
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| ANIMAL ID | 0
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2 | | |
| Adrenal Cortex
Vacuolization Cytoplasmic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | 3 2.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Parathyroid Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | 9 1.3 |
| Pituitary Gland
Angiectasis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | 1 2.0 |
| Pars Distalis, Cyst | | | | | | | | | | X | | | | | | X | | | | | | 2 |
| Pars Distalis, Hyperplasia | 1 | | 2 | | | | 1 | | | | | 1 | 1 | | 1 | 1 | 4 | | | 1 | 9 | 1.4 |
| Pars Intermedia, Cyst | | X | | | | | | | | | | | | | | | | | | | 1 | |
| Thyroid Gland
Ultimobranchial Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | 3 |
| C-cell, Hyperplasia | | | | X | X | X | | | | | | | | | | | | | | | 9 | 2.3 |
| Follicular Cell, Hyperplasia | | | | | | | 3 | | 2 | | | 3 | 1 | 2 | 3 | 2 | 2 | 3 | | | 1 | 3.0 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
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| Exfoliated Germ Cell | | | | | 2 | 1 | | | | | | | | | | | | | | 2 | 3 1.7 | |
| Granuloma Sperm | | | | | | | | | | | | | | | | | | 4 | | | 4 | 1 4.0 |
| Hypospermia | | | | | 4 | | | | | | | | | | 4 | | | 4 | 4 | | 4 4.0 | 4 4.0 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | 1 | | | | | | | | | 1 1.0 | 1 1.0 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Fibrosis | | | | | | | | | | | | | | | | | 2 | | | | 1 2.0 | 1 2.0 |
| Infiltration Cellular, Lymphocyte | | | | | 1 | 2 | | | | 1 | | | | | | 1 | | | | 1 | 5 1.2 | 5 1.2 |
| Inflammation, Suppurative | | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 19 1.4 | 19 1.4 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Infiltration Cellular, Lymphocyte | 1 | | | 1 | 1 | 1 | 2 | 1 | | | 1 | | | | | | | | | 1 | 8 1.1 | 8 1.1 |
| Inflammation, Suppurative | | 1 | | | | | | | | | | | | | | | | | | 1 | 2 1.0 | 2 1.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | 2 | | | | | | | | 1 2.0 | 1 2.0 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Seminiferous Tubule, Degeneration | | | | | 4 | 1 | | | | | | | 1 | | 4 | 1 | | | 4 | 4 | 7 2.7 | 7 2.7 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|-------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | 1 | |
| Degeneration, Cystic | | | | | | | | | | | | | 2 | | | | | | | | 1 2.0 | 1 2.0 |
| Pigmentation | | | | | | | | | | | | 3 | | | | | | | | | 1 3.0 | 1 3.0 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | 3 | | | | | | | | | | 1 3.0 | 1 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|-----|
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2 | | |
| Pigmentation | 1 | 2 | 2 | | | | | | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | | 14 | 1.6 |
| Thymus Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| | 2 | 4 | 4 | 3 | 4 | 4 | 3 | | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 2 | 3 | 4 | 19 | 3.5 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland Hyperplasia, Lobular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| | | | | | | | 1 | | | | | | | | | | | | | | 1 | 1.0 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Lung Pleura, Fibrosis | | | | | | | | | | | | | | | | | | | | | 1 | |
| | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 6 | 6 | 6 | 5 | 5 | 4 | 4 | 4 | 5 | 4 | 6 | 5 | 5 | 5 | 5 | 5 | 4 | 7 | 2 | | | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | | |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 6 | 6 | 5 | 5 | | |
| | | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 8 | 8 | 0 | 0 | | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Nephropathy | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 1 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 2 | 2 | | 20 1.9 |
| Cortex, Cyst | | | | X | | | | | | | | X | X | | | | | | X | | | 4 |
| Pelvis, Dilatation | | | | | | | | 3 | | | | | | | | | | | | | | 1 3.0 |
| Renal Tubule, Cyst | | | | | | | | | | X | | | X | | | | X | | | X | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------------|---|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR) | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| RATS MALE | 6 | 6 | 5 | 5 | 6 | 6 | 6 | 6 | 5 | 6 | 5 | 6 | 2 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 |
| | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 |
| F1 25.0 StDose M | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 8 | 8 | 8 | 8 | 8 | 8 |
| | 8 | 8 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 |
| | | | | | | | | | | | | | | | | | | | | | |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|------------|---|----------|------------|-----------|------------|------------|
| Esophagus | | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Intestine Large, Colon | | | | | | | | | | | | | | | | | | | | | A | 0 | |
| Intestine Small, Ileum | | | | | | | | | | | | | | | | | | | | | A | 0 | |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | 1 | 3 | 1.0 |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | X X | 3 | |
| Infiltration Cellular, Mononuclear Cell | 1 | 1 | | | 1 | 1 | | | 1 | | | | 1 | 1 | | | | 1 | 9 | 1.0 | | | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1.0 |
| Tension Lipidosis | 2 | | | | | 4 | | | | | | 3 | | | | 3 | 3.0 | | | | | | |
| Vacuolization Cytoplasmic | | | 1 | | | 2 | 1 | 1 | 1 | | | | 2 | 2 | | | 2 | 2 | | | 10 | 1.5 | |
| Bile Duct, Hyperplasia | 1 | | | 1 | 2 | | | | | | | | | | | | | 1 | 1 | | | 5 | 1.2 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | X | 1 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1.0 |
| Pigmentation | 2 | | | 1 | 1 | 1 | | | 1 | 2 | | | | 2 | | | 1 | 1 | | | 9 | 1.3 | |
| Acinus, Degeneration | 3 | 2 | 1 | | | 2 | 2 | | | | 4 | | | 3 | 1 | | | 3 | 2 | 2 | 1 | 12 | 2.2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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 1-4 .. Lesion qualified as:
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
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 Bisphenol A
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Date Report Requested: 08/16/2017
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
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| Follicular Cell, Hyperplasia | 3 | 3 | | | | | | 3 | 2 | | | | | | | | | | | | 4 2.8 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|-------|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Exfoliated Germ Cell | | | | | | | | | | | | | | | | | | | 2 | | | 1 2.0 | |
| Hypospermia | | | | | | | | | | | | | | | | | | 4 | | 4 | | 2 4.0 | |
| Infiltration Cellular, Lymphocyte | | | | | 1 | 1 | 1 | | | | | | | | | | | 1 | | | | 4 1.0 | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Degeneration, Cystic | | | | | | | | | | 2 | | | | | | | | | | | | 1 2.0 | |
| Fibrosis | | | | | | | | | | | 2 | | | | | | | | | | | 1 2.0 | |
| Infiltration Cellular, Lymphocyte | 2 | | | | | | | | 1 | 1 | | 1 | | | | | | | | | | 4 1.3 | |
| Inflammation, Suppurative | 2 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | | 1 | | 2 | 2 | | | | 1 | 1 | 16 | 1.6 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Infiltration Cellular, Lymphocyte | 1 | 1 | | | 1 | | | | 1 | | | | 1 | 1 | | 1 | | | 2 | | 1 | | 9 1.1 |
| Inflammation, Suppurative | | | 1 | | | | | | | | 1 | | | | | | | | | | | | 2 1.0 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Lumen, Dilatation | | | | | | | | | | | 4 | | | | | | | | | | | | 1 4.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Seminiferous Tubule, Degeneration | | 2 | | | | 1 | 1 | | | | 1 | | | 1 | | 1 | | 4 | | 4 | 1 | | 9 1.8 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 3 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 6 | 6 | 5 | 5 | 6 | 6 | 6 | 5 | 6 | 5 | 6 | 2 | 5 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | | |
| | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 8 | 8 | 8 | 8 | | |
| | 8 | 8 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 6 | 0 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------|---------|--------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | 3 | 4 | | | | | | | 2 3.5 | | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | 1 | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | 2 1 2.0 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | 3 1 3.0 | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 2 1 2.0 | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Pigmentation | 1 | | 1 | | | 1 | 2 | | | 1 | 2 | | 2 | 2 | 1 | 3 | | 1 | 1 | 2 | 13 1.5 | |
| Capsule, Fibrosis | | | | | | | | | | | | | | | | | 3 | | | | 1 3.0 | |
| Capsule, Inflammation, Chronic | | | | | | | | | | | | | | | | | 3 | | | | 1 3.0 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Atrophy | 2 | 4 | | 4 | 3 | 4 | | | 2 | 4 | 4 | 4 | | 4 | 4 | 2 | 3 | 4 | 1 | 4 | 3 | 17 3.3 |
| Hemorrhage | | | | | | | | | | | | | 3 | | | | | | | | 1 3.0 | |
| Hyperplasia, Lymphoid | | | | | | | 4 | | | | | | | | | | | | | | 4 1 4.0 | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Hyperplasia, Lobular | | | | | | | | | | | | | 2 | | | | | | 1 | 2 1.5 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

NERVOUS SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
| | 03066 | 03066 | 03065 | 03065 | 03066 | 03066 | 03066 | 03065 | 03066 | 03065 | 03066 | 03066 | 03066 | 03066 | 03066 | 03066 | 03066 | 03066 | 03066 | 03066 | | |
| ANIMAL ID | 01581 | 01581 | 01581 | 01581 | 01583 | 01583 | 01583 | 01583 | 01583 | 01583 | 01585 | 01585 | 01585 | 01585 | 01585 | 01585 | 01587 | 01587 | 01587 | 01587 | | |
| | Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Brain, Cerebrum
Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20
1 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Lung
Congestion | | | | | | | | | | | | | | | | | | | | | 1
4 | 1 4.0 |
| Nose | | | | | | | | | | | | | | | | | | | | | 1 | |
| Trachea | | | | | | | | | | | | | | | | | | | | | 1 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Nephropathy | 2 | 1 | 3 | 2 | 4 | 2 | 3 | 3 | 2 | 1 | 4 | | 1 | 1 | 1 | 3 | 2 | 1 | 1 | 4 | 19 | 2.2 |
| Capsule, Lipidosis | | | | | | | | | | | | | | | | X | | | | | 1 | |
| Cortex, Cyst | X | | X | X | | | X | X | | | | | X | | | | | | | | 6 | |
| Renal Tubule, Cyst | | X | | | | | X | X | X | X | X | | | | X | | | X | | | 8 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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Experiment Number: 10034 - 03
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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| ANIMAL ID | 0
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ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|---|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------------------------------------|--------|-------|
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | + | 1 | |
| Liver | + | | | | | | | | | | | | | | | | | | + | 19 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 | |
| Hepatodiaphragmatic Nodule | X | | | | | | | | | | | | | | | | | | X | 3 | |
| Infiltration Cellular, Mononuclear Cell | 1 1 | | | | | | | | | | | | | | | | | | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 13 1.0 | |
| Tension Lipidosis | 3 | | | | | | | | | | | | | | | | | | 3 | 2 3.0 | |
| Vacuolization Cytoplasmic | 1 | | | | | | | | | | | | | | | | | | 2 | 5 1.4 | |
| Bile Duct, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | 2 1 1 | 5 1.4 | |
| Pancreas | + | | | | | | | | | | | | | | | | | | + | 19 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Pigmentation | 1 | | | | | | | | | | | | | | | | | | 1 1 2 1 | 8 1.3 | |
| Acinus, Degeneration | 2 | | | | | | | | | | | | | | | | | | 3 4 4 1 2 3 1 2 1 1 3 1 2 2 2 3 | 17 2.2 | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | |
|----------------|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----------------|--------|
| Blood Vessel | + | | | | | | | | | | | | | | | | | | + | 19 |
| Heart | + | | | | | | | | | | | | | | | | | | + | 19 |
| Cardiomyopathy | 1 1 | | | | | | | | | | | | | | | | | | 2 1 1 1 2 2 1 1 | 13 1.2 |
| Mineralization | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------|-------|
| Adrenal Cortex | + | | | | | | | | | | | | | | | | | | + | 19 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | 2 1 1 | 3 1.3 |

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 I .. Insufficient tissue
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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|
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| | * TOTALS | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Adrenal Medulla
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | 1 | 2.0 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | | |
| Parathyroid Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | 7 | 1.3 |
| Pituitary Gland
Vacuolization Cytoplasmic
Pars Distalis, Cyst
Pars Distalis, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | 1 | 1.0 |
| | | | | | | | | | | | | | | | | | | | | | 1 | |
| | | | | | | | | | | | | | | | | | | | | | 1 | |
| | | | | | | | | | | | | | | | | | | | | | 4 | 1.0 |
| Thyroid Gland
Ultimobranchial Cyst
C-cell, Hyperplasia
Follicular Cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | 5 | |
| | | | | | | | | | | | | | | | | | | | | | 11 | 1.8 |
| | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | | |
| Epididymis
Exfoliated Germ Cell
Hypospermia
Infiltration Cellular, Lymphocyte | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | 2 | 1.0 |
| | | | | | | | | | | | | | | | | | | | | | 1 | |
| | | | | | | | | | | | | | | | | | | | | | 4 | |
| | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

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X .. Lesion present

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 Bisphenol A
 CAS Number: 80-05-7
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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|-----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--------|
| Preputial Gland | + | | | | | | | | | | | | | | | | | | 1 | |
| Inflammation, Suppurative | 4 | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Duct, Dilatation | 3 | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Prostate, Dorsal/lateral Lobe | + + + + M + + + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | 18 | |
| Corpora Amylacea | | | | | | | | | | | | | | | | | | | | X |
| Infiltration Cellular, Lymphocyte | 1 1 | | | | | | | | | | | | | | | | | | | 1 1 |
| Inflammation, Suppurative | 1 1 2 2 1 1 2 2 1 2 2 2 1 2 1 2 1 | | | | | | | | | | | | | | | | | | | 8 1.0 |
| | | | | | | | | | | | | | | | | | | | | 16 1.6 |
| Prostate, Ventral Lobe | + + + + M + + + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | 18 | |
| Infiltration Cellular, Lymphocyte | 1 | | | | | | | | | | | | | | | | | | | 1 1 |
| Inflammation, Suppurative | 1 1 | | | | | | | | | | | | | | | | | | | 1 1 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 1 |
| Seminal Vesicle | + + + + + + + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | 19 | |
| Testes | + + + + + + + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | 19 | |
| Seminiferous Tubule, Degeneration | 1 1 4 1 | | | | | | | | | | | | | | | | | | | 4 1.8 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-------|
| Bone Marrow | + + + + + + + + + + + + + + + + + + + | | | | | | | | | | | | | | | | | | 19 | |
| Lymph Node | | | | | | | | | | | | | | | | | | | 1 | |
| Mediastinal, Hyperplasia, Lymphoid | 2 | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | 1 | |
| Hyperplasia, Lymphoid | 3 | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Infiltration Cellular, Plasma Cell | 4 | | | | | | | | | | | | | | | | | | | 1 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | ANIMAL ID | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--|--|
| | 0
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2 | 0
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2 | 0
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2 | 0
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2 | 0
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0 | | |
| | * TOTALS | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Spleen Pigmentation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | 18 | 1.4 |
| Thymus Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | 18 | 3.4 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Mammary Gland Hyperplasia, Lobular | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | 2 | 1.5 |
| Skin Cyst Epithelial Inclusion | + | | | + | | | | | | | | | + | | | | | | | | 3 | | 2 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|--|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 | | |

RESPIRATORY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
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Experiment Number: 10034 - 03
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 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 7 | 7 | 6 | 5 | 5 | 5 | 4 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 7 | 7 | 4 | 6 | 6 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 | 6 | 7 | 7 | 9 | 9 | 9 |
| | | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 9 | 9 | 8 | 8 | 8 |
| | | 4 | 4 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 6 | 6 | 0 | 0 | 0 |
| | | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | |

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Casts Protein | | | | | | | | | 1 | | | | | | | | | | | 1 1.0 |
| Nephropathy | | 1 | 2 | 3 | 2 | 1 | 1 | 2 | | 1 | 1 | 3 | 1 | 4 | 2 | 1 | 1 | 1 | 1 | 17 1.6 |
| Cortex, Cyst | | X | | | X | | | | | | X | X | | | | | X | X | | 6 |
| Renal Tubule, Cyst | | | | | X | | | | | X | | | X | X | | | X | X | | 6 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
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Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|---|---|---|---|---|---|---|---|---|
| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| F1 2500.StDose M | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--------|
| Liver | + | | | | | | | | | | | | | | | | | | | | | | | | | | 20 | | | | | | | | | | |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 3.0 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Infiltration Cellular, Mononuclear Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 1.0 |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 1.3 |
| Bile Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 1.2 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Pancreas | + | | | | | | | | | | | | | | | | | | | | | | | | | | 20 | | | | | | | | | | |
| Cyst Multilocular | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 1.0 |
| Acinus, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 18 2.2 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|--|--|--|--|--|--|--|--|--------|
| Blood Vessel | + | | | | | | | | | | | | | | | | | | | | | | | | | | 20 | | | | | | | | | | |
| Heart | + | | | | | | | | | | | | | | | | | | | | | | | | | | 20 | | | | | | | | | | |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 18 1.3 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|
| Adrenal Cortex | + | | | | | | | | | | | | | | | | | | | | | | | | | | 20 | |
|----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|--|
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9
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1 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8
9
0
1 | | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|-----|-----|---|-----|
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1.0 | | | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 1 | 3 | 1.7 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|--|
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 20 | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|--|

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|--|
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 20 | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|--|

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|---|-----|
| Parathyroid Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | | 19 | 4 | 1.0 |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|---|-----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|---|---|-----|
| Pituitary Gland
Pars Distalis, Cyst Multilocular
Pars Distalis, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | | 20 | 1 | 4 | 1.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|---|---|-----|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|---|----|-----|
| Thyroid Gland
Ultimobranchial Cyst
C-cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | X | | 20 | 4 | 10 | 1.4 |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|---|----|-----|

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|--|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 20 | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|--|

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|---|-----|---|-----|
| Epididymis
Exfoliated Germ Cell
Hypospermia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 20 | 1 | 2.0 | 3 | 4.0 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|---|-----|---|-----|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----|
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7 | 0
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6 | 0
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| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | |
| | 0
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6
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2
1 | 0
6
4
4
2 | 0
8
1
4
1 | 0
8
1
0
2 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Fat Pad, Epididymal Necrosis | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Prostate, Dorsal/lateral Lobe Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | 20 | 2.0 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | 8 | 1.4 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | 19 | 1.5 |
| Prostate, Ventral Lobe Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | 8 | 1.1 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | 4 | 1.0 |
| Seminal Vesicle | | | | | | | | | | | | | | | | | | | | 20 | |
| Testes Seminiferous Tubule, Degeneration | | | | | | | | | | | | | | | | | | | | 9 | 2.0 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Lymph Node, Mandibular Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Spleen Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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| ANIMAL ID | 0
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1 | 0
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2 | 0
6
9
6
1 | 0
6
9
6
2 | 0
8
9
4
1 | 0
8
9
4
2 |
| Pigmentation | 2 | 2 | 2 | 2 | 1 | 1 | | | 2 | | 2 | 1 | | | 2 | 1 | 1 | 2 | 2 | 2 | | 15 1.7 |
| Thymus Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 18 3.8 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | M | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 17 |
| Skin | | | | | | | | | | + | | | | | | | | | | | | 1 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | DAY ON TEST | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| SPRAGUE DAWLEY (NCTR) | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| RATS MALE | | 6 | 5 | 4 | 4 | 4 | 3 | 7 | 6 | 7 | 6 | 5 | 5 | 7 | 6 | 6 | 6 | 5 | 5 | 6 | |
| F1 2500.StDose M | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 |
| | | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 1 |
| | | 0 | 0 | 1 | 1 | 1 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 0 | 0 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Nephropathy | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 3 | 2 | 2 | 1 | 3 | 2 | 1 | 3 | 2 | 4 | 20 |
| Cortex, Cyst | X | | | | | X | | X | | | X | X | | X | | | | | | | 6 |
| Renal Tubule, Cyst | X | | | X | | | | X | | X | | X | | | | | | X | | | 6 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 6 | 6 | 6 | 5 | 5 | 4 | 7 | 5 | 6 | 5 | 6 | 6 | 5 | 5 | 6 | 5 | 5 | 5 | 5 | 5 | 4 | 3 | 3 |
| | F1 25000StDose M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 2 | 2 | 0 | 0 | | |
| | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 8 | 8 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Basophilic Focus | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Clear Cell Focus | | | | | | | | | | | | | | | | | X | | | | | | 1 |
| Eosinophilic Focus | | | X | | | | | | | | | | | | | | | | | | | | 1 |
| Fatty Change | | | | | | | | | | | | 3 | | | | | | | | | | | 1 3.0 |
| Hematopoietic Cell Proliferation | | | 1 | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Hepatodiaphragmatic Nodule | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Infiltration Cellular, Mononuclear Cell | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | | | | 1 | 1 | | | 1 | 1 | 1 | 1 | | 15 1.0 |
| Polyarteritis | | | 1 | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Tension Lipidosis | | | | | | | 3 | 3 | | | | | | | | | | | | | | | 2 3.0 |
| Vacuolization Cytoplasmic | | | | | | 1 | 1 | | 1 | | 1 | | 2 | 2 | | | 1 | | | | 1 | | 8 1.3 |
| Bile Duct, Hyperplasia | | 1 | | 1 | | | | 1 | | | | | | | 1 | | | | | | 1 | | 5 1.0 |
| Oval Cell, Hyperplasia | | | 1 | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Pigmentation | 2 | 1 | 1 | | | | | | | | 1 | | 2 | | 1 | 2 | 1 | | 1 | 1 | | | 10 1.3 |
| Polyarteritis | | | 2 | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Acinus, Degeneration | 2 | 2 | 2 | 3 | 1 | 2 | 1 | 2 | 1 | 1 | 1 | 2 | 4 | 1 | 1 | 3 | 2 | | 1 | 3 | 2 | | 20 1.9 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Cardiomyopathy | 1 | | 3 | 2 | 2 | | 2 | 1 | 2 | 1 | 1 | | 3 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | 19 1.6 |
| Polyarteritis | | | 1 | | | | | | | | | | | | | | | | | | | | 1 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:20:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

1 Year Animals

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|
| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 6 | 6 | 6 | 5 | 5 | 4 | 7 | 5 | 6 | 5 | 6 | 6 | 5 | 5 | 6 | 5 | 5 | 5 | 5 | 4 | 3 | |
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 2 | 2 | 0 | 0 | |
| | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 3 | 3 | 4 | 8 | 8 | 9 | 9 | 0 | 4 | 4 | 8 | 8 | | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | * TOTALS |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Adrenal Cortex
Vacuolization Cytoplasmic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| | | | | 3 | | | | | | | | | | | 2 | | | | | | | | 2 | 2.5 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Islets, Pancreatic
Fibrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| | | | | | | | | | | 2 | | | | | | | | | | | | | 1 | 2.0 |
| Parathyroid Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| | | | | 2 | | | 2 | | 2 | | 3 | 2 | 2 | | | | 2 | 1 | | | | | 8 | 2.0 |
| Pituitary Gland
Pars Distalis, Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| | | X | | | | | | | | | | | | X | | | | | | | | | 2 | |
| Pars Distalis, Hyperplasia | | | | 1 | | | | 2 | | 1 | 1 | | | | | 1 | | 1 | | | | | 7 | 1.1 |
| Pars Intermedia, Cyst | | | | | | X | | | | | | | | | | | | | | | | | 1 | |
| Rathke's Cleft, Cyst | | | | | | | | | | X | | | | | | | | | | | | | 1 | |
| Thyroid Gland
Ultimobranchial Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| | | | | | X | | | | X | X | | X | X | | | | | | | | | | 5 | |
| C-cell, Hyperplasia | 1 | 2 | | | | | 3 | 1 | | | | | 1 | 3 | 2 | | 1 | 2 | 2 | 2 | 1 | | 12 | 1.8 |
| Follicular Cell, Hyperplasia | | | | | | | | 3 | | | | | | | | 3 | | | | | 3 | | 3 | 3.0 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 6 | 6 | 6 | 5 | 5 | 4 | 7 | 5 | 6 | 5 | 6 | 5 | 5 | 6 | 5 | 5 | 5 | 5 | 5 | 4 | 3 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 2 | 2 | 0 |
| | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 8 | 8 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Polyarteritis | | | 1 | | | | | | | | | | | | | | | | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Exfoliated Germ Cell | | | 1 | | | | | | | | | | | | | | | | | | |
| Hyospermia | | | | | | | | | | | | | | | | | | 4 | | | |
| Infiltration Cellular, Lymphocyte | | | 1 | | | | | | | | | | | | | | | | | 1 | |
| Polyarteritis | | | | 1 | | | | | | | | | | | | | | | | | |
| Fat Pad, Epididymal | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | + | | | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrosis | | | | | | | | | | | | | | | | | | | | 2 | |
| Infiltration Cellular, Lymphocyte | 1 | | | | | | | 1 | 1 | 1 | 1 | | | | | | | | 1 | | |
| Inflammation, Suppurative | 3 | 2 | 1 | 2 | 2 | | | 2 | 2 | 2 | 2 | 2 | | 2 | 1 | 1 | 2 | 2 | 2 | | 1 1 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrosis | | | 2 | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | 1 | 1 | | 1 | | | | 1 | 1 | 1 | 1 | | | | | | | 1 | 1 | |
| Inflammation, Suppurative | | | | | | | | 1 | | | | | | | | | 1 | | | | |
| Polyarteritis | | | 1 | | | | | | | | | | | | | | | | | | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Polyarteritis | | | 1 | | | | | | | | | | | | | | | | | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Polyarteritis | | | 1 | | | | | | | | | | | | | | | | | | |
| Seminiferous Tubule, Degeneration | | | 1 | | | | 1 | | | | 1 | | 2 | | | | | 4 | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR) | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| RATS MALE | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| F1 25000StDose M | 6 | 6 | 6 | 5 | 5 | 4 | 7 | 5 | 6 | 5 | 6 | 6 | 5 | 5 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 4 | 3 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 2 | 2 | 0 | 0 | |
| | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 8 | 8 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Hematopoietic Cell Proliferation | | | 3 | | | | | | | 1 | | | | | | | | | | | | | 2 2.0 |
| Pigmentation | 2 | 4 | 2 | 2 | 2 | 2 | 1 | | 2 | | | 2 | 1 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 1 | | 18 1.8 |
| Polyarteritis | | | 2 | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Atrophy | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 2 | 2 | | 2 | 4 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 21 3.4 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Hyperplasia, Lobular | | | | | | | | | | | | 1 | | | | | | | | | | | 1 1.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Neuron, Degeneration | | | | | | | | | | | | 1 | | | | | | | | | | | 1 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. Ctrl F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|----------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 8 | 8 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 8 | 8 | | |
| | 4 | 4 | 5 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 7 | 7 | 8 | 8 | 1 | 1 | 2 | 2 | 6 | 6 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 |

Stomach, Glandular

+ +

2

CARDIOVASCULAR SYSTEM

Blood Vessel

+ **23**

Heart

+ **23**

Cardiomyopathy

1 1 1 1 1 2 **7 1.1**

Inflammation, Chronic Active

3 **1 3.0**

Polyarteritis

2 **1 2.0**

Myocardium, Necrosis

3 **1 3.0**

ENDOCRINE SYSTEM

Adrenal Cortex

+ **23**

Degeneration, Cystic

1 3 **2 2.0**

Hypertrophy

2 **1 2.0**

Vacuolization Cytoplasmic

2 **2 2.0**

Adrenal Medulla

+ **23**

Islets, Pancreatic

+ **23**

Parathyroid Gland

+ **23**

Hyperplasia

1 1 **2 1.0**

Pituitary Gland

+ **23**

Angiectasis

2 **1 2.0**

Pars Distalis, Cyst

X **2**

Pars Distalis, Hyperplasia

1 1 2 3 3 2 2 3 2 1 2 1 4 1 1 1 2 1 **18 1.8**

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. Ctrl F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
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|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 |
| Ultimobranchial Cyst | | | | X | | X | | | X | | X | X | | | X | | | | | | X | | | 7 |
| C-cell, Hyperplasia | | 1 | | | 1 | | | 1 | 1 | 1 | 2 | 2 | 1 | | 1 | 2 | | 2 | | 2 | | 2 | 1 | 14 1.4 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|---|-------|
| Fat Pad, Ovarian/parametrial Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 4.0 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 | | |
| Atrophy | | | | 2 | | 4 | | 4 | 2 | | 2 | 4 | | | 1 | | 4 | | | | | 4 | 2 | 10 2.9 | | |
| Cyst | | | | | | | | | | | | | | | X | | | | | | | | | 1 | | |
| Diestrus | X | | X | X | X | | X | X | X | | X | | X | X | X | X | | X | X | | | | X | 15 | | |
| Metestrus | | X | | | | | | | | X | | | | | | | | | | | X | | | 3 | | |
| Proestrus | | | | | | | | | | | | | | | | | | | | X | | | | 1 | | |
| Bilateral, Bursa, Cyst | | | | | | X | | | | | | | | | | | | | | | | | | 1 | | |
| Corpus Luteum, Depletion | | | | | | X | | | | | | X | | | | | X | | | | | | X | 4 | | |
| Follicle, Cyst | | | | X | X | X | | X | | | | X | | | | X | | | X | | X | | X | 8 | | |
| Interstitial Cell, Hypertrophy | | | | | | 2 | | | | | | 2 | | | | | 2 | | | | | 2 | | 4 2.0 | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 | | |
| Apoptosis | | | | | | | | | | | 4 | | | | | | 4 | | | | | | | 2 4.0 | | |
| Diestrus | X | | X | X | | | | | X | | X | | X | | X | | | X | X | | | | X | 10 | | |
| Estrus | | | | | | X | | | | X | | X | | | | | X | | | | | | | 4 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
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Experiment Number: 10034 - 03
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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. Ctrl F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
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6 | | |
| Hyperplasia, Stromal | | | | | | | | | | | | | | 2 | | | | | | | | | | 1 | 2.0 |
| Metaplasia, Squamous | | | | | 2 | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Metestrus | | X | | | X | | X | X | | | | | | X | | X | | | | | X | | | 7 | |
| Proestrus | | | | | | | | | | | | | | | | | | | X | | | X | | 2 | |
| Endometrium, Hyperplasia | | | | | | | | | | | | | | 2 | | | | | | | | | 2 | 2 | 2.0 |
| Endometrium, Hyperplasia, Cystic | | | | | 3 | | | | | | 1 | 4 | | | 2 | 2 | | | | | | | 5 | 2.4 | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 | | |
| Diestrus | | | X | X | | | | | X | | X | | X | X | X | | X | X | | | | | 11 | | |
| Estrus | | | | | X | | | | | | X | | | | | X | | | | | | | 3 | | |
| Metestrus | X | X | | | X | | X | X | | X | | | | | | | | | | | X | | 7 | | |
| Proestrus | | | | | | | | | | | | | | | | | | | X | | X | | 2 | | |
| Epithelium, Hyperplasia | | | | | 3 | | | | | | 3 | | | | | 2 | | | | | | | 3 | 2.7 | |
| Epithelium, Mucification | | | 2 | 4 | 2 | | | | | 3 | | | 2 | 4 | 2 | 2 | 2 | | | | | | 10 | 2.7 | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | 4 | | | | | | | | | | 1 | 4.0 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | 2 | | | 2 | | | 1 | | | | 3 | 1.7 | |
| Pigmentation | 2 | 4 | 3 | 2 | 2 | 4 | 3 | 2 | 3 | 3 | 2 | 3 | 2 | 4 | 3 | 3 | 2 | 3 | | 3 | 4 | 3 | 2 | 22 | 2.8 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | 2 | | | | 1 | 2.0 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 23 | | |
| Atrophy | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 2 | 3 | | | 4 | 4 | 4 | 3 | 4 | 4 | 2 | 4 | | 4 | 4 | 20 | 3.4 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
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Experiment Number: 10034 - 03
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 Bisphenol A
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|
| | 0363 | 0363 | 0362 | 0363 | 0361 | 0363 | 0362 | 0362 | 0362 | 0362 | 0362 | 0361 | 0362 | 0362 | 0362 | 0362 | 0362 | 0362 | 0362 | 0362 | | 0362 |
| ANIMAL ID | 00301 | 00302 | 00301 | 00302 | 00301 | 00302 | 00301 | 00302 | 00301 | 00302 | 00301 | 00302 | 00301 | 00302 | 00301 | 00302 | 00301 | 00302 | 00301 | 00302 | 00301 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Fatty Change | | | 1 | | | | | | 2 | | 2 | | | | | | | | | | 3 | | 4 | 2.0 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 1.0 |
| Hepatodiaphragmatic Nodule | | | | X | | | | X | | | | | | | | | | | | | | | 2 | |
| Infiltration Cellular, Mononuclear Cell | | | 1 | 1 | | | | | | | 1 | | | | | | | 1 | | 1 | 2 | | 6 | 1.2 |
| Tension Lipidosis | | | | | | 2 | | 4 | | | | | | | | | 3 | | | | | | 3 | 3.0 |
| Vacuolization Cytoplasmic | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Bile Duct, Hyperplasia | | | | | | 1 | | | | | | 1 | 1 | | 1 | | | | | 2 | 2 | | 6 | 1.3 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Infiltration Cellular, Lymphocyte | 1 | | | | | | | | | 3 | | | | | | | | | | | | | 2 | 2.0 |
| Acinus, Degeneration | | 1 | 1 | | | 1 | 1 | 1 | 4 | 2 | | 2 | | 2 | 2 | 1 | 1 | | | 3 | | | 13 | 1.7 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Cardiomyopathy | 1 | | 2 | | 1 | 1 | | 1 | 1 | | 1 | | | | | 1 | | 1 | | | 2 | | 10 | 1.2 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Degeneration, Cystic | | | | | | 2 | | | | | | 2 | | | | | | | | | | | 2 | 2.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|--------------|
| | 0363 | 0363 | 0362 | 0363 | 0361 | 0363 | 0362 | 0362 | 0362 | 0362 | 0361 | 0362 | 0362 | 0362 | 0362 | 0361 | 0362 | 0362 | 0361 | 0362 | | 0362 | 0361 | 0362 |
| ANIMAL ID | 0030 | 0033 | 0033 | 0031 | 0032 | 0032 | 0032 | 0032 | 0032 | 0032 | 0034 | 0034 | 0034 | 0034 | 0036 | 0036 | 0036 | 0036 | 0037 | 0037 | 0038 | 0038 | 0038 | 0038 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 21 |
| Pituitary Gland
Pars Distalis, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22
17 1.9 |
| Thyroid Gland
Ultimobranchial Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22
7 |
| C-cell, Hyperplasia
Follicle, Cyst | X | X | | | | X | | X | | | X | | | X | | X | | | | | | | | 11 1.2
1 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Atrophy | | | | 4 | | | | | | | 2 | 2 | 2 | | | 4 | 4 | 4 | | | | | | 7 3.1 |
| Diestrus | X | | X | | X | X | X | X | X | X | X | X | X | | | | | | | | X | | | 12 |
| Metestrus | | | | | | | | | | X | | | | | X | | | | | | | X | | 3 |
| Proestrus | | X | | | | | | | | | | | | | X | | | | X | | | | | 3 |
| Corpus Luteum, Depletion | | | | X | | | | | | | | | | | | X | X | X | | | | | | 4 |
| Follicle, Cyst | | | | | | | | | | | | | | | | X | X | X | | | | | | 3 |
| Follicle, Cyst, Multiple | | | | X | | | | | | | | | | | | | | | | | | | | 1 |
| Interstitial Cell, Hypertrophy | | | | 2 | | | | | | | | | | | | 2 | 3 | 2 | | | | | | 4 2.3 |
| Rete Ovarii, Cyst | | | | | | | | X | | | | | | | | | | | | | | | | 1 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | * TOTALS | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--|------|--|
| | 0363 | 0333 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | | | 0366 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 000000222222444466667788224466888833330012 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Apoptosis | | | | 4 | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Diestrus | X | | X | | X | X | X | X | | X | X | X | X | | | | | | | | X | 12 | | |
| Estrus | | | | X | | | | | | | | | | | | | X | | | | | 2 | | |
| Metaplasia, Squamous | | | | 2 | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Metestrus | | | | | | | | | | X | | | | | X | | X | | | | X | 4 | | |
| Proestrus | | | X | | | | | | | | | | | | X | | | X | X | | | 4 | | |
| Endometrium, Cyst | | | | | | | | | | | | | | | | | X | | | | | 1 | | |
| Endometrium, Hyperplasia | 2 | | | | 2 | 1 | | 2 | | | 1 | 3 | | 1 | | | | | | | | 7 | 1.7 | |
| Endometrium, Hyperplasia, Cystic | | | | 1 | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | 3 | | | | | | 1 | 3.0 | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Cyst, Squamous | | | | | | | | | | | | | | | | | | X | | | | 1 | | |
| Diestrus | X | | X | | X | X | | X | X | | X | X | X | X | | | | | | | X | 11 | | |
| Estrus | | | | X | | | | | | | | | | | | | X | | | | | 2 | | |
| Metestrus | | | | | | | X | | | X | | | | | X | | X | | | | X | 5 | | |
| Proestrus | | | X | | | | | | | | | | | | X | | | X | X | | | 4 | | |
| Epithelium, Hyperplasia | | | | 3 | | | | | | | | | | | | | 2 | | | | | 2 | 2.5 | |
| Epithelium, Mucification | 3 | | 2 | 2 | 3 | 3 | | 2 | 3 | | 2 | 4 | 2 | 2 | | | 2 | | | | | 12 | 2.5 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
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 Bisphenol A
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 1 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------------|---|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 0 | |
| | 3 | 3 | 3 | 2 | 3 | 1 | 3 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 2 | 1 | 9 | 7 | 2 | 1 | 5 | 6 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 6 | 6 | 8 | 8 | 8 | 8 | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 7 | 7 | 5 | 5 | 6 | 6 | 0 | |
| | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 4 | 4 | 6 | 6 | 9 | 9 | 0 | 0 | 0 | 0 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 0 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|------------|--------------|
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 3 | 3 2.3 |
| Pigmentation | 3 | 3 | 2 | 4 | 4 | 3 | 3 | 4 | 1 | 3 | 3 | 2 | 2 | 1 | 1 | 2 | 3 | 2 | 3 | 2 | 1 | 21 | 2.5 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Atrophy | 2 | 4 | 4 | 3 | 3 | 4 | | 2 | | 4 | 2 | 3 | 4 | 3 | 4 | 2 | 3 | 4 | 1 | 3 | 4 | 3 | 20 | 3.1 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|------------|--------------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Atypical Focus | | | | | | | | | | | | | | | | | | | | | 1 | 2 | 2 | 3 1.7 |
| Hyperplasia, Lobular | 1 | | 2 | 2 | 1 | | | | | 1 | 2 | 1 | 2 | 1 | | 2 | 1 | | 2 | 1 | | 14 | 1.5 | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | 4 | 4 | | 2 4.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------------|
| Bone | | | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Rib, Fibrosis | | | | | | | | | | | | | | | | | | | | | | 2 | | 1 2.0 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|--|
| Lung | | | | | | | | | | | | | | | | | | | | | | + | 1 | |
|------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
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1-4 .. Lesion qualified as:
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Experiment Number: 10034 - 03
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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------------|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 3 | 3 | 3 | 1 | 5 | 4 | 1 | 1 | 4 | 2 | 4 | 3 | 2 | 3 | 4 | 2 | 4 | 4 | 3 | 4 | 4 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 8 | 8 | |
| | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 9 | 7 | 7 | |
| | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 3 | 3 | 3 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | | |
| Atypical Focus | | | | | | | | | | | | | | | | | | 2 | | 2 | | | | 2 | 2.0 |
| Galactocele | | X | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hyperplasia, Lobular | | | | | | 1 | 2 | 2 | | 2 | 2 | | 2 | 1 | 1 | 1 | | 1 | 1 | 2 | 1 | | 13 | 1.5 | |
| Duct, Dilatation | | 2 | | | | | | | | 1 | 2 | | 1 | | | | | 2 | 2 | 3 | | | 7 | 1.9 | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Compression | | | | | | | | | | | | | | | | | | | | | 1 | | | 1 | 1.0 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | 1 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--------|------|
| | 0363 | 0362 | 0363 | 0363 | 0362 | 0365 | 0362 | 0362 | 0362 | 0361 | 0363 | 0363 | 0363 | 0362 | 0363 | 0363 | 0364 | 0363 | 0364 | 0364 | 0364 | 0362 | | 0363 | 0364 |
| ANIMAL ID | 00621 | 00622 | 00631 | 00632 | 00641 | 00642 | 00671 | 00672 | 00677 | 00687 | 00688 | 00699 | 00690 | 00641 | 00642 | 00645 | 00645 | 00646 | 00670 | 00673 | 00674 | 00677 | 00684 | 00687 | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Cardiomyopathy | | 1 | 1 | 1 | 1 | 1 | | | | | | | | | | 1 | | | | | | | 1 | 8 1.0 | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Degeneration, Cystic | | | 4 | | | | | | | | | | | | | | | | 2 | | | | | 2 3.0 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | 23 | |
| Hyperplasia | | | | | 2 | | | | | | | | | | | | | | | 1 | | | | 2 1.5 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Vacuolization Cytoplasmic | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | X | | | | | | | | X | | 2 | |
| Pars Distalis, Hyperplasia | | | 3 | 1 | | 1 | 1 | | 1 | 1 | 2 | | 1 | 1 | 2 | 2 | 4 | 2 | | 3 | | 1 | | 15 1.7 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Ultimobranchial Cyst | | | X | | | X | | X | | X | | X | X | X | | | | | | | X | | | 8 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|---|----|-----|-----|---|-----|
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7 | 0
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| ANIMAL ID | 0
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1 | 0
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4
2 | 0
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7
1 | 0
2
6
8
1 | | | | | | |
| Endometrium, Hyperplasia | | 2 | | 1 | | | | | | 2 | | | | | | | 2 | 2 | | | 3 | | | 1 | | 7 | 1.9 | | | |
| Endometrium, Hyperplasia, Cystic Lumen, Dilatation | 2 | | | | | | | 3 | | | | 1 | | | | | | | | | | | | | | 3 | 2.0 | | | |
| | | | | | | | | | | | | 4 | | | | | | | | | | 4 | | | | 2 | 4.0 | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | | | |
| Cyst, Squamous | | | | | | | | | | | | | | | | | | | | | | X | | | | 1 | | | | |
| Diestrus | | X | | X | | | | | X | X | | | | | | | X | X | X | | | | X | X | X | 10 | | | | |
| Estrus | X | | X | | | X | X | | | | | | | | | | | | | X | | | | | | 5 | | | | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | | | |
| Metestrus | | | | | X | | | X | | X | | X | | X | X | | | | X | | | | | | X | 8 | | | | |
| Proestrus | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 | | | | |
| Epithelium, Hyperplasia | 3 | | 3 | | | 3 | 3 | | | | | | | | | | | | | | | | | | | 4 | 3.0 | | | |
| Epithelium, Mucification | | 3 | | 4 | | | | | | 3 | 3 | | | | | | 3 | 4 | 4 | | | 3 | | 2 | | 9 | 3.2 | | | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | | |
| Mediastinal, Infiltration Cellular, Mast Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | | |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | | |
| Renal, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | | |
| Renal, Sinus, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 3 | 3 | 2.7 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|------|--|
| | 0363 | 0362 | 0363 | 0363 | 0362 | 0365 | 0362 | 0362 | 0362 | 0361 | 0363 | 0363 | 0363 | 0362 | 0363 | 0363 | 0364 | 0363 | 0364 | 0364 | 0364 | 0362 | 0363 | | 0367 | 0364 | |
| ANIMAL ID | 00621 | 00622 | 00631 | 00632 | 00641 | 00642 | 00681 | 00682 | 00691 | 00692 | 00601 | 00641 | 00642 | 00644 | 00649 | 00651 | 00652 | 00661 | 00662 | 00671 | 00672 | 00677 | 00688 | 00688 | 00677 | | |
| Pigmentation | 4 | 4 | 4 | 4 | 3 | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 3 | 4 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 3 | 1 | 3 | 24 | 2.8 | |
| Polyarteritis | | | | | 3 | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Atrophy | 4 | 3 | 4 | 4 | | 2 | 1 | 3 | | | 4 | 4 | 3 | 4 | 3 | 3 | 3 | 3 | 4 | 2 | 1 | 4 | 2 | 4 | 21 | 3.1 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Atypical Focus | | | | 1 | | | | | | | | | | | | | | | | | 1 | | | | 2 | 1.0 | |
| Hyperplasia, Lobular | | 1 | | 2 | | 1 | 1 | | 1 | | 1 | | | 1 | 1 | 1 | 1 | 2 | | 2 | 3 | 1 | 1 | 15 | 1.3 | | |
| Duct, Dilatation | | | | 3 | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | + | | | | | | | | | | + | | | | | | | + | 3 | | | |
| Infiltration Cellular, Histiocyte | | | | | | 3 | | | | | | | | | | 2 | | | | | | | | 2 | 2.5 | | |
| Nose | | | | | | | + | | | | | | | | | | | | | | | | + | 2 | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| F1 2500.BPA F | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| ANIMAL ID | 3 | 3 | 3 | 2 | 3 | 2 | 4 | 3 | 4 | 3 | 3 | 2 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | 9 | 9 |
| | 7 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 |
| | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 0 | 0 | 1 | 1 | 7 | 7 | 1 | 1 | 1 | 1 | 1 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| | * TOTALS | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | X | | | 1 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Infiltration Cellular, Mononuclear Cell | | | | | | | 1 | | | | | | | 1 | 1 | 1 | | | 1 | | | 5 1.0 |
| Tension Lipidosis | | | | | | | | | | | | | | 3 | | | | | | | | 1 3.0 |
| Vacuolization Cytoplasmic | | | | | | | | | 2 | | | | | | | | | | | | | 1 2.0 |
| Bile Duct, Hyperplasia | | 1 | | | | | 1 | | | 1 | | | | | | | | | | | | 3 1.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Basophilic Focus | | | | | | | | X | | | | | | | | | | | | | | 1 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Acinus, Degeneration | 2 | 4 | | | 1 | | 2 | 2 | 1 | 1 | | | 3 | | 1 | 1 | 2 | 1 | 2 | | | 13 1.8 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Cardiomyopathy | 1 | | 1 | 1 | | 1 | 1 | | | | | | | 1 | 1 | | 1 | | 2 | | | 9 1.1 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Degeneration, Cystic | | | | | | | 3 | | | | | | 2 | | | | | | | | | 2 2.5 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0363 | 0363 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | 0366 | |
| ANIMAL ID | 00781 | 00782 | 00791 | 00792 | 00799 | 00800 | 00801 | 00802 | 00804 | 00805 | 00806 | 00807 | 00808 | 00809 | 00811 | 00812 | 00815 | 00816 | 00817 | 00818 | |
| Corpus Luteum, Depletion | X | | X | X | | | | X | X | | | | | X | X | | | X | | | |
| Follicle, Cyst | X | | X | X | | X | | X | X | | | X | X | X | | | | X | | | |
| Interstitial Cell, Hypertrophy | 2 | | 2 | 3 | | | | 2 | 2 | | | | | 2 | 3 | | | 2 | | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Apoptosis | 4 | | 3 | | | | | | | 3 | | | | 4 | 3 | | | | | | |
| Diestrus | | | | | X | X | X | | | | | X | | | | X | | X | X | X | |
| Estrus | X | | X | | | | | | | X | | | | X | X | | | X | | | |
| Metaplasia, Squamous | | | 1 | | | | | | | 3 | | | | | | | | 1 | | | |
| Metestrus | | | | | | | | X | | X | | | | | | | | | | | |
| Proestrus | | | X | | X | | | | | | | | X | | | | X | | | | |
| Endometrial Glands, Hyperplasia | | | | | 2 | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia | | | | | 1 | | | | | | 2 | | | | | 3 | | | 3 | 2 | |
| Endometrium, Hyperplasia, Cystic Lumen, Dilatation | 3 | | 2 | | | | | | | 2 | 2 | | | 2 | 2 | | | 2 | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Diestrus | | | | | X | X | X | | | | | X | | | | X | X | | X | X | |
| Estrus | X | | X | X | | | | | | X | | | | X | X | | | X | | | |
| Metestrus | | | | | | | | X | | X | | | | | | | | | | | |
| Proestrus | | | X | | | | | | | | | | X | | | | | | | | |
| Epithelium, Hyperplasia | 3 | | 3 | | | | | | | 3 | | | | 3 | 3 | | | 2 | | | |
| Epithelium, Mucification | | | | | 4 | | 4 | | | | 4 | | | | 4 | | | 3 | 3 | 4 | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
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 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|-------|
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2 | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |
| Pigmentation | 3 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | | 2 | 2 | 4 | 4 | 3 | 2 | 2 | 3 | 3 | 3 | 2 | 19 | 2.9 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Atrophy | 4 | 4 | 3 | 4 | | 2 | | 3 | 3 | | 4 | 2 | | 2 | 2 | 4 | 3 | 4 | 4 | 3 | 16 | 3.2 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Galactocele | | | | | | | | | | | | | | X | | | | | | | 1 | |
| Hyperplasia, Lobular | | | | 1 | 1 | | 1 | 1 | 1 | | 1 | | 2 | 2 | 1 | | 1 | 4 | 1 | 1 | 13 | 1.4 |
| Duct, Dilatation | | | | | | | | | 1 | | | | | 3 | | | | | | | 2 | 2.0 |
| Skin | | | | | | | | | | | | | | | | | | | | + | 1 | |
| Edema | | | | | | | | | | | | | | | | | | | | 4 | 4 | 1 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | 4 | 4 | 1 4.0 |
| Ulcer | | | | | | | | | | | | | | | | | | | | 4 | 4 | 1 4.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | 4 | 4 | 1 4.0 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | |
| | 3 | 3 | 3 | 2 | 3 | 2 | 4 | 3 | 4 | 3 | 3 | 2 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 2 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | |
| | 7 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | | |
| | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 0 | 0 | 1 | 1 | 1 | 7 | 7 | 1 | 1 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |

* TOTALS

Brain, Cerebrum

+ + + + + + + + + + + + + + + + + + + +

20

RESPIRATORY SYSTEM

NONE

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Casts Protein | 1 | | 1 | | | 1 | | | | | | | | | | | | | | |
| Mineralization | | 1 | | | | 2 | | 2 | 2 | 1 | | 1 | | 1 | 1 | | 1 | | 1 | 1 |
| Nephropathy | | | | 1 | 1 | | 1 | 1 | 1 | | 1 | | 1 | 3 | 1 | | 3 | 1 | | |
| Cortex, Cyst | | | | | X | | | | | X | | | | | X | | | | | |
| Renal Tubule, Cyst | | | | | X | | | | | | | | | | | | X | | X | |

20

3 1.0
 11 1.3
 11 1.4
 3
 3

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0363 | 0334 | 0335 | 0336 | 0337 | 0338 | 0339 | 0340 | 0341 | 0342 | 0343 | 0344 | 0345 | 0346 | 0347 | 0348 | 0349 | 0350 | 0351 | 0352 | 0353 | 0354 | 0355 | |
| ANIMAL ID | 00941 | 00942 | 00945 | 00946 | 00949 | 00951 | 00952 | 00953 | 00954 | 00955 | 00956 | 00957 | 00958 | 00959 | 00960 | 00961 | 00962 | 00963 | 00964 | 00965 | 00966 | 00967 | 00968 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | X | | | | | | 1 |
| Fatty Change | | | | | | | | | | | | | | | | | | | | 3 | | | | | 1 | 3.0 |
| Infiltration Cellular, Mononuclear Cell | | | 1 | | | | | | | | | 1 | | 1 | | | | | | | | 1 | | | 4 | 1.0 |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 1.0 |
| Vacuolization Cytoplasmic | | | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 1.0 |
| Bile Duct, Hyperplasia | | | | | | | 1 | | | | | | | | | | | | | | | | 2 | | 2 | 1.5 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | 2 | | | | | 1 | 2.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 1.0 |
| Acinus, Degeneration | 2 | 2 | | 2 | 1 | 4 | 2 | 3 | 1 | | 2 | | 2 | 2 | 2 | 2 | 4 | | 1 | 1 | 1 | | | 18 | 2.0 | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Cardiomyopathy | | | | 1 | 2 | 1 | | | | | 1 | | 1 | | | | | | | | 1 | | | 7 | 1.1 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|

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 BLANK .. Not examined microscopically
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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0363 | 0334 | 0335 | 0336 | 0337 | 0338 | 0339 | 0340 | 0341 | 0342 | 0343 | 0344 | 0345 | 0346 | 0347 | 0348 | 0349 | 0350 | 0351 | 0352 | 0353 | 0354 | 0355 | 0356 | |
| ANIMAL ID | 00941 | 00942 | 00945 | 00946 | 00949 | 00951 | 00952 | 00953 | 00954 | 00955 | 00956 | 00957 | 00958 | 00959 | 00960 | 00961 | 00962 | 00963 | 00964 | 00967 | 00968 | 00969 | 00971 | 00972 | |
| Bursa, Cyst | | | | | | | | | | | | | | | | | | | | | | X | X | X | 3 |
| Corpus Luteum, Cyst | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |
| Corpus Luteum, Depletion | | | | X | X | | X | | X | | X | X | | X | | | | | | | X | X | | | 9 |
| Follicle, Cyst | | | X | X | | X | | X | | X | X | | X | X | X | | | | | | X | X | | | 11 |
| Interstitial Cell, Hypertrophy | | | 2 | 1 | | 2 | | 3 | | 2 | 2 | | 2 | | | | | | | | 2 | 2 | | | 9 2.0 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Apoptosis | | | | 4 | 3 | | 4 | | 3 | | 2 | 4 | | 3 | | | | | | | 3 | 3 | | | 9 3.2 |
| Diestrus | | X | | | | | | X | | | | | | X | | X | | | | | | | X | | 5 |
| Estrus | | | | X | X | | X | | X | | X | X | | X | | | | | | | X | X | | | 9 |
| Metaplasia, Squamous | | | | | | | 1 | | | | 1 | | 1 | | | | | | | | 1 | 1 | | | 5 1.0 |
| Metestrus | X | | | | | X | | | | X | | | X | | | | | X | X | X | | | X | | 8 |
| Proestrus | | | X | | | | | | | | | | | X | | | | | | | | | | | 2 |
| Endometrial Glands, Hyperplasia | | | | | | | | | 3 | | | | | | | | | | | | | | | | 1 3.0 |
| Endometrium, Hyperplasia | | | | | | | 2 | | | | | | | | | | | | | | | 2 | | | 2 2.0 |
| Endometrium, Hyperplasia, Cystic | | | | 2 | | 2 | | 4 | | | | 2 | | | | | | | | | | | | | 4 2.5 |
| Lumen, Dilatation | | | 4 | | | | | | | | | | | | | 4 | | | | | | | | | 2 4.0 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Diestrus | | | | | | | | X | | | | | | X | X | X | | | | X | | X | X | | 7 |
| Estrus | | | X | X | X | | X | | | | X | X | | X | | | | | | | X | X | | | 9 |
| Metestrus | X | X | | | | X | | | X | X | | X | | | | | | X | X | | | | | | 8 |
| Epithelium, Hyperplasia | | | | 3 | 2 | | 3 | | | | 3 | 3 | | 3 | | | | | | | 3 | 3 | | | 8 2.9 |
| Epithelium, Mucification | | | | | 2 | | | 4 | | | | | | 1 | 2 | 4 | 2 | | | | 3 | | 4 | | 8 2.8 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
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 A .. Autolysis precludes evaluation
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 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0363 | 0334 | 0335 | 0334 | 0335 | 0332 | 0332 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0332 | 0332 | 0333 | 0333 | 0333 | 0332 | | |
| ANIMAL ID | 00941 | 00942 | 00941 | 00942 | 00941 | 00942 | 00941 | 00942 | 00941 | 00942 | 00941 | 00942 | 00941 | 00942 | 00941 | 00942 | 00941 | 00942 | 00941 | 00942 | 00941 | 00942 | 00941 | 00942 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pigmentation | 3 | 4 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | 2 | 4 | 3 | 4 | 2 | 3 | 2 | | 3 | 2 | 3 | 3 | 4 | 1 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Atrophy | 3 | 3 | 4 | 4 | 2 | 3 | 3 | 3 | 3 | | 2 | | 3 | 4 | 2 | 2 | 2 | 4 | 4 | 3 | 3 | 3 | 4 | 4 | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 4 | | | | | | | | | | | | 1 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Hyperplasia, Lobular | | | | 1 | 1 | 1 | 1 | 4 | 3 | | | | | | 1 | 2 | | 1 | | 1 | 1 | 1 | | 12 | |
| Duct, Dilatation | | | | | | | | 3 | | | | | | | 1 | | | | | | | | | 2 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 24 | |
| Nerve Trigeminal | | | | | + | + | | | | | | | | | | | + | + | | | | | | 4 | |
| Peripheral Nerve, Sciatic | | | | | + | + | | | | | | | | | | | + | + | | | | | | 4 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
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 I .. Insufficient tissue
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 1) Minimal 3) Moderate
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
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2 | 0
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1 | 0
9
0
4
2 |

Stomach, Forestomach + +
 Stomach, Glandular + A

CARDIOVASCULAR SYSTEM

Blood Vessel +
 Heart +
 Cardiomyopathy 1 1 1 1 1 1 1

ENDOCRINE SYSTEM

Adrenal Cortex +
 Adrenal Medulla +
 Islets, Pancreatic +
 Parathyroid Gland Hyperplasia +
 2 2
 Pituitary Gland Angiectasis + + + + + + + + + + + + + + + M + + + + + + + + + +
 4
 Pars Distalis, Hyperplasia 1 2 2 1 1 2 1 3 2 1 1 1 1 1 1 2 1 1 3 3 2
 Pars Intermedia, Cyst X X X X
 Thyroid Gland Infiltration Cellular, Lymphocyte +
 1
 Ultimobranchial Cyst X X X X X X

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue
 X .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically
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Experiment Number: 10034 - 03

Test Type: CHRONIC

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Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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0
3
2 | 0
5
0
3
1 | 0
5
0
3
2 | 0
5
0
4
1 | 0
5
0
4
2 | 0
7
0
3
1 | 0
7
0
3
2 | 0
7
0
4
1 | 0
7
0
4
2 | 0
9
0
2
1 | 0
9
0
3
2 | 0
9
0
3
4 | 0
9
0
3
1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Uterus | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Apoptosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Diestrus | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Estrus | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Metestrus | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Proestrus | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Endometrium, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Endometrium, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Vagina | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Diestrus | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Estrus | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Metestrus | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Proestrus | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Epithelium, Mucification | 2 | | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | + | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | 4 | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 6 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 1 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 3 | 3 | 2 | 2 | 8 | 2 | 3 | 2 | 6 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 5 | 4 | 3 | 2 | 3 | 3 | 4 | 3 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 3 | 3 | 4 | 4 | 2 | 2 | 2 | | |
| | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 9 | 9 | 0 | 0 | 3 | 3 | 4 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Infiltration Cellular, Plasma Cell | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | 4 | 3 | 3 | 2 | 3 | 4 | 3 | 4 | 3 | 3 | 2 | 4 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | 4 | 3 | 2 | 2 | 3 |
| Thymus | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | 4 | 2 | 2 | | | 3 | 2 | 3 | | 3 | 3 | | | 2 | 4 | 3 | 4 | 2 | 4 | 4 | 4 | M | 4 | 3 | 4 |
| Hemorrhage | 2 | | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|--|--|--|---|---|--|--|--|--|--|---|--|--|---|---|--|--|--|---|---|---|---|---|
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lobular | 1 | 1 | | | | 2 | 1 | | | | | | 2 | | | 2 | 1 | | | | 2 | 1 | 2 | 3 | 2 |
| Duct, Dilatation | 1 | | | | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Bone, Femur | + | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Brain, Brain Stem | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebellum | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebrum | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Nerve Trigeminal | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Sciatic | + | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 3 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 4 | |
| | | 2 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | | | | | | |
|---|---|--|--|--|--|---------------|
| Esophagus | | | | | | 2 |
| Intestine Large, Colon | | | | | | 1 |
| Intestine Small, Ileum | | | | | | 1 |
| Liver | | | | | | 26 |
| Basophilic Focus | | | | | | 3 |
| Clear Cell Focus | | | | | | 1 |
| Fatty Change | | | | | | 1 1.0 |
| Hepatodiaphragmatic Nodule | | | | | | 1 |
| Infiltration Cellular, Mononuclear Cell | 1 | | | | | 7 1.0 |
| Inflammation, Chronic Active | | | | | | 1 1.0 |
| Tension Lipidosis | 1 | | | | | 3 2.3 |
| Vacuolization Cytoplasmic | | | | | | 2 1.0 |
| Bile Duct, Hyperplasia | | | | | | 8 1.3 |
| Hepatocyte, Necrosis | | | | | | 1 1.0 |
| Mesentery | | | | | | 1 |
| Fat, Necrosis | | | | | | 1 4.0 |
| Pancreas | | | | | | 26 |
| Basophilic Focus | | | | | | 2 |
| Infiltration Cellular, Lymphocyte | | | | | | 1 1.0 |
| Pigmentation | 1 | | | | | 1 1.0 |
| Acinus, Degeneration | 3 | | | | | 20 1.6 |

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| DAY ON TEST | | | | |
|--|---|---|-----------------|--|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | 0 | | | |
| | 3 | | | |
| | 6 | | | |
| | 3 | | | |
| ANIMAL ID | | | | |
| | 0 | | | |
| | 9 | | | |
| | 2 | | | |
| | 4 | | | |
| | 2 | | | |
| | | | * TOTALS | |
| Stomach, Forestomach | | | 2 | |
| Stomach, Glandular | | | 1 | |
| CARDIOVASCULAR SYSTEM | | | | |
| Blood Vessel | | + | 26 | |
| Heart | | + | 26 | |
| Cardiomyopathy | | 1 | 8 1.0 | |
| ENDOCRINE SYSTEM | | | | |
| Adrenal Cortex | | + | 26 | |
| Adrenal Medulla | | + | 26 | |
| Islets, Pancreatic | | + | 26 | |
| Parathyroid Gland | | + | 26 | |
| Hyperplasia | | | 2 2.0 | |
| Pituitary Gland | | + | 25 | |
| Angiectasis | | | 2 3.0 | |
| Pars Distalis, Hyperplasia | | 2 | 20 1.7 | |
| Pars Intermedia, Cyst | | | 1 | |
| Thyroid Gland | | + | 26 | |
| Infiltration Cellular, Lymphocyte | | | 1 1.0 | |
| Ultimobranchial Cyst | | X | 7 | |

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Bisphenol A

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1 Year Animals

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| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 3 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 4 | |
| | | 2 | |
| | | | * TOTALS |

C-cell, Hyperplasia

11 1.4

Follicular Cell, Hyperplasia

1 2.0

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | |
|--------------------------------|---|----|-----|
| Clitoral Gland | | 1 | |
| Inflammation, Suppurative | | 1 | 3.0 |
| Duct, Dilatation | | 1 | 3.0 |
| Fat Pad, Ovarian/parametrial | | 1 | |
| Necrosis | | 1 | 4.0 |
| Ovary | + | 25 | |
| Atrophy | | 9 | 3.3 |
| Cyst | | 1 | |
| Diestrus | | 12 | |
| Hyperplasia, Tubulostromal | | 1 | 3.0 |
| Metestrus | X | 6 | |
| Proestrus | | 1 | |
| Bursa, Cyst | | 1 | |
| Corpus Luteum, Cyst | | 1 | |
| Corpus Luteum, Depletion | | 6 | |
| Follicle, Cyst | X | 9 | |
| Interstitial Cell, Hypertrophy | | 5 | 2.2 |
| Oviduct | + | 25 | |

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Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | |
|-------------|---|-----------------|
| DAY ON TEST | 0 | |
| | 3 | |
| | 6 | |
| | 3 | |
| ANIMAL ID | 0 | |
| | 9 | |
| | 2 | |
| | 4 | |
| | 2 | |
| | | * TOTALS |

| | | | | | |
|--|---|--|--|--|---------------|
| Uterus | + | | | | 25 |
| Apoptosis | | | | | 6 3.3 |
| Diestrus | | | | | 8 |
| Estrus | | | | | 6 |
| Infiltration Cellular, Polymorphonuclear | | | | | 1 2.0 |
| Metaplasia, Squamous | | | | | 2 2.0 |
| Metestrus | X | | | | 9 |
| Proestrus | | | | | 2 |
| Endometrial Glands, Hyperplasia | | | | | 1 2.0 |
| Endometrium, Cyst | | | | | 2 |
| Endometrium, Hyperplasia | | | | | 4 2.0 |
| Endometrium, Hyperplasia, Cystic | | | | | 6 1.5 |
| Lumen, Dilatation | | | | | 1 4.0 |
| <hr/> | | | | | |
| Vagina | + | | | | 25 |
| Diestrus | | | | | 10 |
| Estrus | X | | | | 6 |
| Infiltration Cellular, Polymorphonuclear | | | | | 1 2.0 |
| Metestrus | | | | | 8 |
| Proestrus | | | | | 1 |
| Epithelium, Hyperplasia | 2 | | | | 7 2.4 |
| Epithelium, Mucification | 4 | | | | 15 3.3 |

HEMATOPOIETIC SYSTEM

| | | | | | |
|------------------------|---|--|--|--|--------------|
| Bone Marrow | + | | | | 26 |
| <hr/> | | | | | |
| Lymph Node, Mandibular | | | | | 1 |
| Hyperplasia, Lymphoid | | | | | 1 4.0 |

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 Lab: NCTR

| DAY ON TEST | | | | |
|--|---|--|----|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | 0 | | | |
| | 3 | | | |
| | 6 | | | |
| | 3 | | | |
| ANIMAL ID | | | | |
| | 0 | | | |
| | 9 | | | |
| | 2 | | | |
| | 4 | | | |
| | 2 | | | |
| | | | | * TOTALS |
| Infiltration Cellular, Plasma Cell | | | 1 | 3.0 |
| Spleen | + | | 26 | |
| Pigmentation | 3 | | 26 | 2.8 |
| Thymus | + | | 25 | |
| Atrophy | 4 | | 20 | 3.2 |
| Hemorrhage | | | 1 | 2.0 |
| INTEGUMENTARY SYSTEM | | | | |
| Mammary Gland | + | | 26 | |
| Hyperplasia, Lobular | 1 | | 13 | 1.6 |
| Duct, Dilatation | | | 3 | 1.7 |
| MUSCULOSKELETAL SYSTEM | | | | |
| Bone, Femur | + | | 26 | |
| NERVOUS SYSTEM | | | | |
| Brain, Brain Stem | + | | 26 | |
| Brain, Cerebellum | + | | 26 | |
| Brain, Cerebrum | + | | 26 | |
| Nerve Trigeminal | | | 2 | |
| Peripheral Nerve, Sciatic | | | 2 | |

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Bisphenol A

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Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| DAY ON TEST | | | |
|--|---|--|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | 0 | | |
| | 3 | | |
| | 6 | | |
| | 3 | | |
| ANIMAL ID | | | |
| | 0 | | |
| | 9 | | |
| | 2 | | |
| | 4 | | |
| | 2 | | |
| | | | * TOTALS |
| Peripheral Nerve, Tibial | | | 2 |
| Spinal Cord, Cervical | | | 2 |
| Spinal Cord, Lumbar | | | 2 |
| Spinal Cord, Thoracic | | | 2 |
| RESPIRATORY SYSTEM | | | |
| Lung | | | 2 |
| Congestion | | | 1 4.0 |
| Nose | | | 1 |
| Trachea | | | 2 |
| SPECIAL SENSES SYSTEM | | | |
| Eye | | | 1 |
| Hemorrhage | | | 1 4.0 |
| Bilateral, Cataract | | | 1 4.0 |
| URINARY SYSTEM | | | |
| Kidney | + | | 26 |
| Casts Protein | | | 2 1.5 |
| Mineralization | 2 | | 17 1.5 |
| Nephropathy | | | 13 1.4 |
| Cortex, Cyst | | | 4 |

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+ .. Tissue examined microscopically

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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | | DAY ON TEST | |
|---|--|-------------|-----------------|
| | | 0 | |
| | | 3 | |
| | | 6 | |
| | | 3 | |
| | | ANIMAL ID | |
| | | 0 | |
| | | 9 | |
| | | 2 | |
| | | 4 | |
| | | 2 | |
| | | | * TOTALS |
| Renal Tubule, Cyst | | | 5 |

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 + .. Tissue examined microscopically
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 I .. Insufficient tissue
 M .. Missing tissue
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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|
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3 | 0
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5 | 0
3
6
3 | 0
3
6
5 | | |
| Degeneration, Cystic | 2 | | | | | | | | | | | | 3 | | | | | 2 | | | 1 | | | 2 | | |
| Adrenal Medulla
Hemorrhage
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Parathyroid Gland
Hyperplasia | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Pituitary Gland
Angiectasis
Pars Distalis, Cyst
Pars Distalis, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Thyroid Gland
Ultimobranchial Cyst
C-cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Hyaline | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|
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|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hyperplasia, Sertoliform | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | |
| Bursa, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Corpus Luteum, Depletion | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Follicle, Cyst | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X | X |
| Interstitial Cell, Hypertrophy | 2 | 2 | 2 | 2 | 3 | 2 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 1 | 3 | 3 | 4 | 3 | 3 | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Infiltration Cellular, Polymorphonuclear Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Apoptosis | | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | | 4 | 3 | 2 | | 3 | | 4 | 2 | 4 | | | 3 | | 4 | | |
| Estrus | | X | X | X | X | X | X | X | X | X | | X | X | X | | X | X | X | X | X | X | | X | | X | | |
| Infiltration Cellular, Polymorphonuclear Metaplasia, Squamous | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Metestrus | X | | 1 | 3 | 1 | 1 | 1 | 3 | 2 | | | 2 | 2 | 1 | | | | | 1 | 1 | 1 | | | | 2 | | |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Cyst | | | | | | | | | | | | | | X | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | 1 | 1 | | 1 | | 2 | 2 | | 4 | 2 | | | | | | | | 3 | 2 | 2 | 1 | 3 | | | 2 | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Estrus | | X | X | X | X | X | X | X | X | X | | X | X | X | | X | X | X | X | X | X | | X | | X | | |
| Metestrus | X | | | | | | | | | | X | | | X | X | | | | | | | X | | X | | | |
| Epithelium, Hyperplasia | 2 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 2 | 3 | | 3 | 3 | 2 | | 3 | 3 | 2 | 3 | 3 | 2 | 3 | | 2 | 3 | | |
| Epithelium, Mucification | 3 | 2 | 4 | 4 | 4 | 4 | | 3 | | | | | 4 | 3 | | | | 3 | 4 | 1 | 3 | 3 | 4 | 2 | 2 | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | |
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Lymph Node, Mandibular
 Hyperplasia, Lymphoid
 Infiltration Cellular, Plasma Cell

+
2
2

Spleen
 Hematopoietic Cell Proliferation
 Pigmentation

+
 4 4 4 3 4 3 2 4 4 3 3 4 4 4 4 4 3 3 3 4 3 4 3 3

Thymus
 Atrophy
 Epithelial Cell, Hyperplasia

+
 4 4 4 4 4 2 4 3 4 2 4 2 2 3 4 2 4 4 4 4 4 4 4 4

INTEGUMENTARY SYSTEM

Mammary Gland
 Galactocele
 Hyperplasia, Lobular
 Duct, Dilatation

+
 X X X
 1 2 1 2 2 2 1 2 1 2 1 3 1 1 1 2 1 2 2 2 2 2 1
 2 1 2 4 4 2 2 1 2 2 3 1 1 3 2 1 1 2 2 2 2 2 2

MUSCULOSKELETAL SYSTEM

Bone, Femur

+ +

NERVOUS SYSTEM

Brain, Brain Stem
 Brain, Cerebellum
 Brain, Cerebrum

+
 +
 +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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 M .. Missing tissue
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 1) Minimal 3) Moderate
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 6 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 3 | |
| | | 2 | |
| | | 2 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | | | |
|---|---|----|--------|
| Intestine Large, Cecum | | 1 | |
| Epithelium, Hyperplasia | | | 1 4.0 |
| Liver | + | 26 | |
| Basophilic Focus | | | 3 |
| Eosinophilic Focus | | | 1 |
| Hepatodiaphragmatic Nodule | | | 1 |
| Infiltration Cellular, Mononuclear Cell | | | 2 1.0 |
| Vacuolization Cytoplasmic | | | 1 1.0 |
| Bile Duct, Hyperplasia | | | 4 1.5 |
| Mesentery | | 2 | |
| Fat, Necrosis | | | 2 4.0 |
| Pancreas | + | 26 | |
| Pigmentation | | | 1 1.0 |
| Acinus, Degeneration | 2 | | 18 1.7 |

CARDIOVASCULAR SYSTEM

| | | | |
|----------------|---|----|--------|
| Blood Vessel | + | 26 | |
| Heart | + | 26 | |
| Cardiomyopathy | 2 | | 17 1.2 |

ENDOCRINE SYSTEM

| | | | |
|----------------|---|----|--|
| Adrenal Cortex | + | 26 | |
|----------------|---|----|--|

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Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | ANIMAL ID | * TOTALS | | | |
|---|-------------|-----------|----------|--|----|-----|
| | | | | | | |
| | 0 | | | | | |
| | 3 | | | | | |
| | 6 | | | | | |
| | 6 | | | | | |
| | | 0 | | | | |
| | | 9 | | | | |
| | | 3 | | | | |
| | | 2 | | | | |
| | | 2 | | | | |
| Degeneration, Cystic | | 2 | | | 6 | 2.0 |
| Adrenal Medulla | | + | | | 26 | |
| Hemorrhage | | | | | 1 | 4.0 |
| Hyperplasia | | | | | 1 | 1.0 |
| Islets, Pancreatic | | + | | | 26 | |
| Parathyroid Gland | | + | | | 25 | |
| Hyperplasia | | | | | 1 | 1.0 |
| Pituitary Gland | | + | | | 26 | |
| Angiectasis | | | | | 6 | 2.5 |
| Pars Distalis, Cyst | | | | | 4 | |
| Pars Distalis, Hyperplasia | | 3 | | | 25 | 2.4 |
| Thyroid Gland | | + | | | 26 | |
| Ultimobranchial Cyst | | X | | | 11 | |
| C-cell, Hyperplasia | | 1 | | | 13 | 1.2 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | |
|-----------------------|--|---|--|--|----|-----|
| Ovary | | + | | | 26 | |
| Atrophy | | 4 | | | 26 | 4.0 |
| Cyst | | | | | 2 | |
| Degeneration, Hyaline | | | | | 1 | 4.0 |
| Fibrosis | | | | | 1 | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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Experiment Number: 10034 - 03

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 6 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 3 | |
| | | 2 | |
| | | 2 | |
| | | | * TOTALS |

| | | | |
|--------------------------------|---|----|-----|
| Hyperplasia, Sertoliform | | 1 | 4.0 |
| Pigmentation | | 1 | 4.0 |
| Bursa, Cyst | | 4 | |
| Corpus Luteum, Depletion | X | 26 | |
| Follicle, Cyst | X | 26 | |
| Interstitial Cell, Hypertrophy | 3 | 26 | 2.5 |

| | | | |
|--|---|----|-----|
| Oviduct | + | 26 | |
| Infiltration Cellular, Polymorphonuclear Epithelium, Hyperplasia | | 1 | 3.0 |
| | | 1 | 2.0 |

| | | | |
|--|---|----|-----|
| Uterus | + | 26 | |
| Apoptosis | | 18 | 3.4 |
| Estrus | X | 21 | |
| Infiltration Cellular, Polymorphonuclear | | 1 | 2.0 |
| Metaplasia, Squamous | | 14 | 1.6 |
| Metestrus | | 5 | |
| Endometrial Glands, Hyperplasia | | 2 | 1.5 |
| Endometrium, Cyst | | 2 | |
| Endometrium, Hyperplasia, Cystic | 4 | 14 | 2.1 |

| | | | |
|--------------------------|---|----|-----|
| Vagina | + | 26 | |
| Estrus | X | 20 | |
| Metestrus | | 6 | |
| Epithelium, Hyperplasia | 2 | 20 | 2.6 |
| Epithelium, Mucification | 2 | 18 | 3.1 |

HEMATOPOIETIC SYSTEM

| | | | |
|-------------|---|----|--|
| Bone Marrow | + | 26 | |
|-------------|---|----|--|

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| | | | |
|---|-------------|---|-----------------|
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F1 0.50 EE2 F | DAY ON TEST | 0 | |
| | | 3 | |
| | | 6 | |
| | | 6 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 3 | |
| | | 2 | |
| | | 2 | |
| | | | * TOTALS |

| | | | | |
|---|---|----|----|-----|
| Lymph Node, Mandibular
Hyperplasia, Lymphoid
Infiltration Cellular, Plasma Cell | | 1 | | |
| | | | 1 | 2.0 |
| | | | 1 | 2.0 |
| Spleen | + | 26 | | |
| Hematopoietic Cell Proliferation | 2 | | 1 | 2.0 |
| Pigmentation | 2 | | 26 | 3.5 |
| Thymus | + | 26 | | |
| Atrophy | 2 | | 24 | 3.4 |
| Epithelial Cell, Hyperplasia | | | 1 | 4.0 |

INTEGUMENTARY SYSTEM

| | | | | |
|----------------------|---|----|----|-----|
| Mammary Gland | + | 26 | | |
| Galactocele | | | 4 | |
| Hyperplasia, Lobular | 1 | | 23 | 1.6 |
| Duct, Dilatation | | | 22 | 2.0 |

MUSCULOSKELETAL SYSTEM

| | | | | |
|-------------|---|----|--|--|
| Bone, Femur | + | 26 | | |
|-------------|---|----|--|--|

NERVOUS SYSTEM

| | | | | |
|-------------------|---|----|--|--|
| Brain, Brain Stem | + | 26 | | |
| Brain, Cerebellum | + | 26 | | |
| Brain, Cerebrum | + | 26 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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Experiment Number: 10034 - 03
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | | DAY ON TEST | | |
|---|---|-------------|-----------------|-----|
| | | ANIMAL ID | | |
| | | 0 | | |
| | | 3 | | |
| | | 6 | | |
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| | | 0 | | |
| | | 9 | | |
| | | 3 | | |
| | | 2 | | |
| | | 2 | | |
| | | | * TOTALS | |
| Neuron, Degeneration | | | 1 | 1.0 |
| Nerve Trigeminal | + | | 4 | |
| Peripheral Nerve, Sciatic | + | | 4 | |
| Peripheral Nerve, Tibial | + | | 4 | |
| Spinal Cord, Cervical | + | | 4 | |
| Spinal Cord, Lumbar | + | | 4 | |
| Spinal Cord, Thoracic | + | | 4 | |
| RESPIRATORY SYSTEM | | | | |
| Lung | | | 1 | |
| Infiltration Cellular, Histiocyte | | | 1 | 4.0 |
| SPECIAL SENSES SYSTEM | | | | |
| NONE | | | | |
| URINARY SYSTEM | | | | |
| Kidney | + | | 26 | |
| Casts Protein | | | 4 | 1.0 |
| Mineralization | | | 14 | 1.7 |
| Nephropathy | 2 | | 15 | 1.4 |
| Renal Tubule, Cyst | X | | 4 | |

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR) | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| RATS FEMALE | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| F1 Veh. StDose F | 5 | 4 | 5 | 4 | 6 | 6 | 4 | 2 | 7 | 6 | 7 | 7 | 5 | 5 | 5 | 4 | 3 | 3 | 6 | 6 | 6 |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 4 | 4 | 4 | 4 |
| | 5 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 2 | 2 | 5 | 5 | 6 | 6 | 6 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Cholangiofibrosis | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |
| Hepatodiaphragmatic Nodule | | | | X | | | | | | | | | | | | | | | | | | 1 |
| Infiltration Cellular, Mononuclear Cell | | | | | | | | | | | | | 2 | | | | | | | | 1 | 2 1.5 |
| Mixed Cell Focus | | | | | | | | | | | | | X | | | | | | | | | 1 |
| Tension Lipidosis | | | | | | | | | | | 2 | | | | | | | | | | | 1 2.0 |
| Vacuolization Cytoplasmic | | 1 | | | | | | | | | | | | | 1 | | | | | | | 2 1.0 |
| Bile Duct, Hyperplasia | | | | | | 2 | 1 | 1 | | | | | | 1 | | | | | | | | 4 1.3 |
| Mesentery | + | | | | | | | | | | | | | | | | | | | | | 1 |
| Fat, Necrosis | 3 | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | 1 | | | | | | | | 1 1.0 |
| Pigmentation | | | 1 | | | | | | | | 1 | | | | | | | | 1 | 1 | | 4 1.0 |
| Acinus, Degeneration | 2 | 3 | 3 | | 1 | 2 | 3 | 2 | 3 | 2 | 4 | 2 | | 3 | | 2 | | 2 | 2 | 3 | | 16 2.4 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Cardiomyopathy | 1 | 1 | | | 1 | | | | | | 1 | 1 | | | | | | 1 | | | | 6 1.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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| ANIMAL ID | 0
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3
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6 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Parathyroid Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 1 | 20
1 1.0 | |
| Pituitary Gland
Pars Distalis, Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20
3 | |
| Pars Distalis, Hyperplasia | 2 | 1 | 2 | | 1 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | | 1 | 1 | 1 | 2 | 1 | | 18 1.4 | |
| Thyroid Gland
Ultimobranchial Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20
4 | |
| C-cell, Hyperplasia | | | 1 | | | 1 | | 1 | 1 | | 1 | 1 | | 1 | 1 | | 1 | | 1 | 1 | | 10 1.0 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Atrophy | 2 | | | 2 | 1 | 1 | 4 | 2 | | 2 | 2 | 2 | | | | 4 | | | | | 10 2.2 |
| Diestrus | | | | X | X | X | | X | | X | X | X | | X | | X | | | | X | 10 |
| Metestrus | X | X | X | | | | | | X | | | | X | | | | | X | X | | 7 |
| Proestrus | | | | | | | | | | | | | | | X | | | | | | 1 |
| Corpus Luteum, Cyst | | | | | X | | | | | | | | | | | | | | X | | 2 |
| Corpus Luteum, Depletion | | | | | | | X | | | | | | | | | X | | | | | 2 |
| Follicle, Cyst | X | | | | | X | | | | X | | | | | X | | | X | | | 5 |
| Interstitial Cell, Hypertrophy | 3 | | | 3 | | 3 | | | 2 | | | | | | | | | | | | 4 2.8 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

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M .. Missing tissue

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RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|-----------------|
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2 | | * TOTALS |

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|--|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---------|--------------|--|-----|----------|
| Oviduct | + | | | | | | | | | | | | | | | | | | | | | 20 | | | |
| Uterus | + | | | | | | | | | | | | | | | | | | | | | 20 | | | |
| Apoptosis | | | | | | | | | | | | | | | | | | | | | 4 | 2 4.0 | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 | | | |
| Diestrus | | | | | | | | | | | | | | | | | | | | | X X X | 7 | | | |
| Estrus | | | | | | | | | | | | | | | | | | | | | X | 2 | | | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 | | | |
| Metestrus | X | X | X | | | | | | | | | | | | | | | | | | | | | X X | 8 |
| Proestrus | | | | | | | | | | | | | | | | | | | | | X | 2 | | | |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 | | | |
| Endometrium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 2 2 2 | 6 2.0 | | | |
| Endometrium, Hyperplasia, Cystic Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | 2 2 | 2 3.0 | | | |
| | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 | | | |
| Vagina | + | | | | | | | | | | | | | | | | | | | | | 20 | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 | | | |
| Diestrus | | | | | | | | | | | | | | | | | | | | | X X X | 6 | | | |
| Estrus | | | | | | | | | | | | | | | | | | | | | X | 2 | | | |
| Metestrus | X | X | X | | | | | | | | | | | | | | | | | | | | | X X | 9 |
| Proestrus | | | | | | | | | | | | | | | | | | | | | X | 2 | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 3 | 2 3.0 | | | |
| Epithelium, Mucification | | | | | | | | | | | | | | | | | | | | | 2 2 1 4 | 8 3.0 | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----|--------------|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | 20 |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | 20 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | 2 2 | 2 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|-----|
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| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | * TOTALS | |
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9
4 | | |
| Pigmentation | 3 | 2 | 1 | 3 | 3 | 1 | 4 | 3 | 2 | 3 | 4 | 2 | 1 | 1 | 4 | 2 | 1 | 1 | 2 | 2 | 20 | 2.3 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Atrophy | 2 | 2 | 3 | | 2 | 3 | 2 | 4 | 4 | | 2 | 3 | 2 | 4 | | 3 | 4 | 4 | 3 | 2 | 18 | 2.8 |
| Cyst | | | | | | | | | | X | | | | | | | | | | | 1 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Atypical Focus | | | | | | | | | | | | | | | | | | | 1 | | 1 | 1.0 |
| Galactocoele | | | | | | | | | | X | | | | | | | | | | | 1 | |
| Hyperplasia, Lobular | | 1 | 2 | 2 | 1 | 1 | 1 | 1 | | | 2 | 2 | 1 | | 1 | 1 | | 1 | 3 | 1 | 15 | 1.4 |
| Duct, Dilatation | 2 | 1 | | | | | 1 | | | | 3 | | | | | | | | | | 4 | 1.8 |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Meninges, Cyst | | | | | | | | | | | | | | | | | | | X | | 1 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | | | | | | | | | | | | | | + | | 1 | |

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|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 5 | 4 | 5 | 4 | 6 | 6 | 4 | 2 | 7 | 6 | 7 | 7 | 5 | 5 | 5 | 4 | 3 | 3 | 6 | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | 9 | 9 |
| | | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 4 | 4 | 4 | 4 | 4 |
| | | 5 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 7 | 7 | 2 | 2 | 5 | 5 | 5 | 6 | 6 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | |

Infiltration Cellular, Histiocyte

1

1 1.0

SPECIAL SENSES SYSTEM

Eye

Cataract

+

1

4

1 4.0

URINARY SYSTEM

Kidney

Casts Protein

Mineralization

Nephropathy

Cortex, Cyst

Renal Tubule, Cyst

Renal Tubule, Hypertrophy

| | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
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| | | | | 1 | 2 | 1 | 2 | 2 | 1 | 1 | | 2 | | | 1 | 1 | 1 | 1 | 4 | |
| 2 | 1 | 1 | | | | | 1 | 1 | 1 | | | 2 | 1 | | | | | 3 | 1 | |
| | | | | X | | | | | X | | | | X | | | | | | | |
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20

3 1.0

13 1.5

10 1.4

3

4

1 1.0

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 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | F1 2.5 StDose F | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 6 | 6 | 6 | 6 | 5 | 5 | 7 | 6 | 5 | 5 | 4 | 4 | 5 | 5 | 4 | 4 | 4 | 0 | 4 | 4 | 2 | 2 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 9 | 9 | 9 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 7 | 7 | 5 | 5 | 5 |
| | | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 6 | 6 | 9 | 9 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Infiltration Cellular, Mononuclear Cell | | | | | | | | | | | | | | | | | | | | | | | 10 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Bile Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Acinus, Degeneration | | | | | | | | | | | | | | | | | | | | | | | 14 2.1 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | | | | | 8 1.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|--------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| ANIMAL ID | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Parathyroid Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | 21 | 1 2.0 |
| Pituitary Gland
Angiectasis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | 2 2.5 |
| Pars Distalis, Hyperplasia | 3 | | 1 | 2 | 2 | | 1 | 1 | 2 | 2 | 1 | | 3 | 1 | 1 | 1 | 1 | | | 1 | 1 | 16 1.5 |
| Thyroid Gland
Ultimobranchial Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | 6 |
| C-cell, Hyperplasia | 1 | 1 | 1 | 1 | 1 | 1 | | | 1 | 3 | 1 | 1 | | 2 | | | 2 | 1 | 2 | 2 | 1 | 16 1.4 |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | 3 | | | | | | | | | 1 3.0 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Clitoral Gland
Atrophy | | | | | | | | | | | | | | | | | | | | | | 1 | 1 3.0 |
| Ovary
Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | 9 2.8 |
| Cyst | 4 | | 1 | 2 | 4 | 2 | | | | 2 | | 4 | | | 2 | | 4 | | | | | | 2 |
| Diestrus | | | X | X | | X | X | | X | X | | X | | X | | X | X | | X | | | | 11 |
| Metestrus | | | | | | | | X | | | X | | X | | X | | X | | | | X | | 5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 03

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------|
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4 | 0
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4 | 0
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4 | 0
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4 | 0
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2 | | | |
| ANIMAL ID | 0
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3 | 0
3
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4 | 0
3
6
8
1 | 0
3
6
7
2 | 0
3
6
7
2 | 0
3
6
9
1 | 0
3
6
9
2 | |
| Proestrus | | X | | | | | | | | | | | | | | | | | | | X | | 2 |
| Corpus Luteum, Cyst | | | | | | | | | | | | X | | | | | | | | | X | | 2 |
| Corpus Luteum, Depletion | X | | | | X | | | | | | X | | | | X | | | | | | | | 4 |
| Follicle, Cyst | X | | | | X | | X | | | | X | | | | X | | X | | | | | | 6 |
| Interstitial Cell, Hypertrophy | 2 | | | | 3 | | | | | | 2 | | | | | | | | | | | | 3 2.3 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Apoptosis | | | | | 2 | | | | | | | | | | | | 4 | | | 4 | | | 3 3.3 |
| Diestrus | | | X | X | | X | X | | X | X | | | X | | X | | | X | | X | | | 10 |
| Estrus | | | | | X | | | | | | | X | | | | | X | | X | | | | 4 |
| Metaplasia, Squamous | 1 | | | | 1 | | | | | | | | | | | | | | | | | | 2 1.0 |
| Metestrus | X | | | | | | | X | | X | | | X | | X | | X | | | | X | | 7 |
| Proestrus | | X | | | | | | | | | | | | | | | | | | | | | 1 |
| Cervix, Cyst, Squamous | | | | | | | X | | | | | | | | | | | | | | | | 1 |
| Endometrium, Cyst | | | | | | | | | | | | | | | | | | X | | | | | 1 |
| Endometrium, Hyperplasia | | | 2 | 3 | | 1 | 2 | | 2 | 2 | | | 2 | | | 3 | | | | 2 | | | 9 2.1 |
| Endometrium, Hyperplasia, Cystic | 3 | | | | | | | | | | | 3 | | | | | 2 | | 2 | | | | 4 2.5 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Diestrus | | | X | X | | X | X | | X | X | | | X | | X | | X | X | | X | | | 11 |
| Estrus | | | | | X | | | | | | | X | | | | X | | | | | | | 3 |
| Metestrus | X | | | | | | | X | | X | | | | X | | X | | | | | | X | 6 |
| Proestrus | | X | | | | | | | | | | | | | | | | | X | | | | 2 |
| Epithelium, Hyperplasia | 3 | | | | 3 | | | | | | | 3 | | | | 3 | | | | | | | 4 3.0 |
| Epithelium, Mucification | 3 | | 3 | 4 | | 3 | | | 2 | 3 | | 2 | 2 | | 4 | | | 4 | | 4 | | | 11 3.1 |

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|-----------------|-----------------|
| | 0366 | 0366 | 0366 | 0366 | 0365 | 0365 | 0367 | 0366 | 0365 | 0365 | 0364 | 0364 | 0365 | 0365 | 0364 | 0364 | 0360 | 0364 | 0364 | 0362 | | 0362 | |
| ANIMAL ID | 015001 | 015001 | 015001 | 015001 | 015001 | 015001 | 015003 | 015003 | 015003 | 015003 | 015003 | 015003 | 015005 | 015005 | 015005 | 015005 | 015005 | 015007 | 015007 | 015009 | 015009 | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Spleen Pigmentation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| | 3 | 3 | 3 | 2 | 4 | 3 | 3 | 4 | 2 | 2 | 3 | 4 | 1 | 2 | 3 | 3 | 2 | 1 | 2 | 3 | 3 | 2 | 22 2.6 |
| Thymus Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Hyperplasia, Lymphoid | 4 | 2 | | 2 | 4 | 4 | 2 | 4 | 2 | 2 | | 4 | | 4 | 4 | 4 | 4 | 3 | 3 | 2 | 2 | 2 | 19 3.1
1 4.0 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland Hyperplasia, Lobular Duct, Dilatation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| | 1 | | 1 | | 2 | 1 | | | 1 | 2 | 1 | 1 | 1 | | 3 | | | 1 | | 2 | | 12 1.4
2 1.5 | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

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Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|
| SPRAGUE DAWLEY (NCTR) | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| RATS FEMALE | 7 | 6 | 6 | 6 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 5 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 5 | 5 |
| F1 25.0 StDose F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 8 | 8 | 9 | 9 | 9 | 7 | 7 | 7 | 7 |
| | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 3 | 3 | 3 | 3 | 3 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|------------|------------|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Clear Cell Focus | | | X | | | | | | | | | | | | | | | | | | | | | 1 | |
| Eosinophilic Focus | | | X | | | | | | | | | | | | | | | | | | | | | 1 | |
| Fatty Change | | | | | | | | | 3 | | | | | 3 | | | | | | | | | 2 | 3.0 | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Infiltration Cellular, Mononuclear Cell | | | | | | 1 | 1 | | | | | | | 1 | | 1 | 1 | | 1 | | | | 7 | 1.0 | |
| Tension Lipidosis | | 3 | 4 | | | | | | | | | | | | | | | | | | | | 2 | 3.5 | |
| Vacuolization Cytoplasmic | | | 1 | | | | | | | | | | | 1 | | 1 | | | | | | | 3 | 1.0 | |
| Bile Duct, Hyperplasia | | | | | | 1 | | | | | | | | | | | | 1 | 2 | | 1 | | 4 | 1.3 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Pigmentation | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Acinus, Degeneration | | | 2 | | 1 | 2 | 3 | | | | | | 2 | 2 | 1 | 2 | | 2 | 2 | 1 | | 2 | 13 | 1.8 | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|------------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Cardiomyopathy | | | 1 | | 1 | | 1 | 1 | | | | | | | 2 | | | | 1 | 1 | | | 7 | 1.1 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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X .. Lesion present
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M .. Missing tissue
A .. Autolysis precludes evaluation
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 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----|
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| ANIMAL ID | 0
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1 | 0
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3
2 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Angiectasis | | | | | | | | 2 | | | | | | | | | | | | | 1 | 2.0 | |
| Pars Distalis, Hyperplasia | | | | | 2 | 2 | 3 | 3 | 2 | 1 | | | | 1 | 1 | 3 | 1 | 1 | 2 | 2 | 3 | 14 | 1.9 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Ultimobranchial Cyst | X | | X | | X | X | | | | X | | | | X | | | | | X | | 7 | | |
| C-cell, Hyperplasia | 1 | 2 | | 1 | 1 | | | | | 1 | 1 | 1 | 2 | | 1 | 2 | | | | | 11 | 1.3 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Atrophy | 1 | | 1 | 1 | | 1 | 1 | | | 2 | | | | 1 | | 1 | 4 | 1 | | 4 | 11 | 1.6 |
| Diestrus | | X | | | | X | X | | X | X | | | | | | X | | X | X | | 9 | |
| Metestrus | X | | | | | | | X | | | | | X | | X | | | | | | 4 | |
| Proestrus | | | X | X | X | | | | | | | X | | X | | | | | | | 5 | |
| Corpus Luteum, Cyst | | X | | X | | | | | | | | | | | | | | | | | 2 | |
| Corpus Luteum, Depletion | | | | | | | | | | | | | | | | | X | | | X | 2 | |
| Follicle, Cyst | | X | | X | | | | | | | | | | | | X | | | | X | 4 | |
| Interstitial Cell, Hypertrophy | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|---|-------|-----------------|
| | 0367 | 0366 | 0366 | 0366 | 0365 | 0365 | 0365 | 0366 | 0366 | 0366 | 0366 | 0366 | 0365 | 0364 | 0364 | 0364 | 0366 | 0365 | 0366 | 0366 | | | 0365 | 0365 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11661 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 11662 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 8 | 8 | 9 | 9 | 9 | 7 | 7 | 7 | 11663 | |
| | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 3 | 3 | 3 | 11664 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | * TOTALS |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|--|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|----------|--------------|---|--------------|
| Uterus | + | | | | | | | | | | | | | | | | | | | | | 20 | | |
| Apoptosis | | | | | | | | | | | | | | | | | | | 4 | | 3 | 2 3.5 | | |
| Diestrus | X | | | | | | | | | | | | | | | | | | X | | X | 7 | | |
| Estrus | | | | | | | | | | | | | | | | | | | X | | X | 2 | | |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | 2 | | | 1 2.0 | | |
| Metestrus | X | | | | | | | | | | | | | | | | | X | X | | 6 | | | |
| Proestrus | X | | X | X | | | | | | | | | | | | | | | | | X | X | | 5 |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 | | |
| Endometrium, Cyst | | | | | | | | | | | | | | | | | | | X | | | 2 | | |
| Endometrium, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | 2 | 5 1.8 | | |
| Endometrium, Hyperplasia, Cystic | 2 | | | | | | | | | | | | | | | | | | | | | | 2 | 2 2.0 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | 4 | | | 1 4.0 | | |
| Vagina | + | | | | | | | | | | | | | | | | | | | | | 20 | | |
| Diestrus | X | | | | | | | | | | | | | | | | | | X | X | X | 9 | | |
| Estrus | | | | | | | | | | | | | | | | | | | X | | X | 2 | | |
| Metestrus | X | | | | | | | | | | | | | | | | | X | X | | 4 | | | |
| Proestrus | X | | X | X | | | | | | | | | | | | | | | | | X | X | | 5 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 3 | 2 3.0 | | |
| Epithelium, Mucification | 3 | | | | | | | | | | | | | | | | | | 4 | 2 | 3 | 9 2.9 | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---------------|--|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | 20 | |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | 20 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | 2 | | | 1 2.0 | |
| Pigmentation | 4 | 4 | 3 | 2 | 4 | 2 | 2 | 4 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 3 | 2 | 2 | 1 | 3 | | 20 2.3 | |
| Thymus | + | | | | | | | | | | | | | | | | | | | | | 20 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | |
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4 |
| Atrophy | 3 | 4 | | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 2 | | 4 | 4 | 2 | 4 | | * TOTALS | 18 3.6 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|--|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Hyperplasia, Lobular | | 3 | | | | | 1 | | 3 | | 1 | | | 1 | | 1 | | | | 1 | 2 | | 8 1.6 | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | 2 | | 1 2.0 | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|--|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|--|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|--|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|----------|--------------|--|
| Lung | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | 4 | | 1 4.0 | |

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | ANIMAL ID | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 7 | 6 | 6 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 5 | 4 | 4 | 4 | 6 | 5 | 6 | 6 | 5 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 7 | 7 | 7 | 7 | 9 |
| | | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 8 | 8 | 9 | 9 | 7 |
| | | 6 | 6 | 7 | 7 | 8 | 8 | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 3 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

* TOTALS

| | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Casts Protein | | | | | | | | 1 | | | | | | | | | | | | 1 | 1.0 | |
| Mineralization | 4 | 2 | | | | | 1 | 2 | | 2 | | | 2 | | 1 | 1 | | 1 | 1 | 1 | 11 | 1.6 |
| Nephropathy | 1 | | | | | 1 | 1 | | | | | 1 | | 1 | | 1 | 1 | 1 | 1 | 2 | 10 | 1.1 |
| Cortex, Cyst | | | X | | | X | | | | | | | | X | | X | X | | X | | 6 | |
| Renal Tubule, Cyst | | | | | X | | | | | | | | | | | X | X | X | | | 4 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|------------------|--|
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6 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1
8
2
1 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Basophilic Focus | | | | | | | | | | | | | | X | | | | | | X | | | | 2 | |
| Eosinophilic Focus | | | | | | | | | | | | | | | X | | | | | | | | | 1 | |
| Fatty Change | | | | 2 | | | | | | | | 2 | 1 | | | | | | | 1 | | | 4 | 1.5 | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | X | | | | | | | | | | 1 | | |
| Infiltration Cellular, Mononuclear Cell | | | | | | | | | 1 | 1 | 1 | | | 1 | 1 | | | | 1 | 1 | | | 7 | 1.0 | |
| Tension Lipidosis | | | | | | | | | | | | 2 | | | | | | | | | | | 1 | 2.0 | |
| Vacuolization Cytoplasmic | | | | | | | 1 | | | | | | | 1 | | | | | | 2 | 1 | | 4 | 1.3 | |
| Bile Duct, Hyperplasia | | | | | | | | | | | | | | 2 | 1 | | | | | | | | 3 | 1.3 | |
| Hepatocyte, Degeneration | | | | | | | | | | | | | | | | | | | | 3 | | | 1 | 3.0 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Cyst Multilocular | | | | X | | | | | | | | | | | | | | | | | | | | 1 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | 1 | | | | | | 1 | 1.0 | |
| Acinus, Degeneration | | | 3 | 2 | | 1 | | 2 | 2 | | 3 | 1 | 3 | | 1 | | | 4 | 2 | | 3 | 1 | 2 | 14 | 2.1 |
| Stomach, Glandular | | | | | | | | | | | | + | | | | | | | | | | | | 1 | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Cardiomyopathy | | | | | | | | | | | | | 1 | 2 | | 1 | 1 | 1 | 2 | | | 1 | 7 | 1.3 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|

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 2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--------------|
| | 0366 | 0366 | 0365 | 0364 | 0366 | 0366 | 0364 | 0364 | 0365 | 0364 | 0365 | 0363 | 0366 | 0366 | 0367 | 0366 | 0365 | 0365 | 0365 | 0363 | | 0363 |
| ANIMAL ID | 01821 | 01822 | 01831 | 01832 | 01841 | 01842 | 01881 | 01882 | 01891 | 01892 | 01901 | 01902 | 01961 | 01962 | 01981 | 01982 | 01988 | 01988 | 01988 | 01988 | 01998 | |
| Degeneration, Cystic | | | | | | | 4 | | | | | | | | | | | 1 | | | | 2 2.5 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Parathyroid Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22
2 2.0 |
| Pituitary Gland
Pars Distalis, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22
20 1.6 |
| Thyroid Gland
Infiltration Cellular, Lymphocyte | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22
1 1.0 |
| Ultimobranial Cyst | | | X | | | | | | | X | X | | | X | | | | | | | | 4 |
| C-cell, Hyperplasia | | 1 | | 1 | | | 2 | 1 | 2 | 1 | | 1 | | 1 | | 1 | 2 | | 1 | 1 | 2 | 12 1.3 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Atrophy | 1 | | 2 | | 4 | 2 | 2 | | | | | | | | | 4 | | | | | | 6 2.5 |
| Diestrus | | X | X | | | X | X | X | X | | | X | X | | | X | X | X | | | X | 12 |
| Metestrus | X | | | X | | | | | | | | | X | | | | | | X | | | 4 |
| Proestrus | | | | | | | | | X | X | | | | X | | | | | | X | | 4 |
| Corpus Luteum, Cyst | | | | | | X | X | | X | | X | | | | | | | | | | | 5 |
| Corpus Luteum, Depletion | | | | | X | | | | | | | | | | | X | | | | | | 2 |
| Follicle, Cyst | | | | | X | X | | X | | | | X | X | | X | | | | X | | | 7 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:20:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-----------------------|-----------------------|-----------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------|-----------------------|----------------------------|----------------------------|----------------------------|----------------------------|-----------------------|-----------------------|
| | 0
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| ANIMAL ID | 0
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1 | 0
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|----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---------|--------|
| Interstitial Cell, Hypertrophy | 2 | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Periovarian Tissue, Cyst | X | | | | | | | | | | | | | | | | | | | | X | 2 |
| Oviduct | + | | | | | | | | | | | | | | | | | | | | 22 | |
| Uterus | + | | | | | | | | | | | | | | | | | | | | 22 | |
| Apoptosis | | | | | | | | | | | | | | | | | | | | | 3 | 3.0 |
| Diestrus | X X | | | | | | | | | | | | | | | | | | | | X X | 7 |
| Estrus | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Hyperplasia, Stromal | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Metestrus | X X | | | | | | | | | | | | | | | | | | | | X X X | 8 |
| Proestrus | | | | | | | | | | | | | | | | | | | | | X X X | 5 |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Endometrium, Cyst | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Endometrium, Hyperplasia | 3 | | | | | | | | | | | | | | | | | | | | 2 2 1 | 7 1.9 |
| Endometrium, Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | | | 2 2 | 2 2.0 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | 4 | 3.8 |
| Vagina | + | | | | | | | | | | | | | | | | | | | | 22 | |
| Diestrus | X X | | | | | | | | | | | | | | | | | | | | X X X | 10 |
| Estrus | | | | | | | | | | | | | | | | | | | | | X | 2 |
| Metestrus | X X | | | | | | | | | | | | | | | | | | | | X X | 5 |
| Proestrus | | | | | | | | | | | | | | | | | | | | | X X X | 5 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 4 | 4.0 |
| Epithelium, Mucification | 2 2 | | | | | | | | | | | | | | | | | | | | 2 2 2 4 | 11 2.7 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | 22 | |
|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
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Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|-----|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular
Hyperplasia, Lymphoid
Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | + | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | | | | | | | | | | | | | | | | | | | | | | |
| Spleen
Hematopoietic Cell Proliferation
Pigmentation | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | 3 | 2.3 | | |
| | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 | 2 | 2 | 3 | 1 | 1 | 3 | 2 | 3 | 4 | 2 | 1 | 3 | 2 | 3 | 1 | 3 | 2 | 3 | 2 | 1 | 22 | 22 | 2.3 |
| Thymus
Atrophy | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | 17 | 3.1 | |
| | | | | | | | | | | | | | | | | | | | | | | | 2 | | 2 | | 4 | 3 | 4 | 2 | | 2 | 4 | 3 | 4 | 3 | 3 | 4 | 4 | 3 | 3 | 2 | | | 17 | 3.1 | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland
Hyperplasia, Lobular
Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | 12 | 1.4 | | |
| | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | 1 | | 2 | | 1 | 1 | 1 | 1 | | 2 | 3 | 2 | | 1 | | | 12 | 1.4 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Skin | | | | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| MUSCULOSKELETAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | | | |
| NERVOUS SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Brain Stem | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | | | |
| Brain, Cerebellum | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 03
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 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------------|--------------|---------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | | |
| | 6 | 6 | 5 | 4 | 6 | 6 | 4 | 4 | 5 | 4 | 5 | 3 | 6 | 6 | 7 | 6 | 5 | 5 | 5 | 5 | 6 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 4 | 4 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | | | |
| | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 0 | 0 | 1 | 1 | 0 | 0 | 0 | 0 | 8 | 8 | 8 | | | |
| | 2 | 2 | 3 | 3 | 4 | 4 | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 3 | 3 | 4 | 4 | 8 | 8 | 7 | | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 22 | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 22 | |
| Mineralization | 1 | | 1 | | | | | 2 | 1 | 1 | | 1 | 2 | 2 | 2 | | 1 | | 1 | 2 | 1 | 2 | | 14 1.4 |
| Nephropathy | | | 1 | 1 | | | 1 | | | 1 | | | 2 | 1 | 2 | 3 | 1 | 2 | | | | 1 | | 11 1.5 |
| Cortex, Cyst | | | X | | | | X | | | | | X | | | X | | | | | | | | | 4 |
| Renal Tubule, Cyst | | | X | | X | | | | | | | | X | | | | | | | X | | | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|-----------------|--|
| | 0366 | 0334 | 0335 | 0334 | 0336 | 0336 | 0334 | 0334 | 0334 | 0333 | 0336 | 0336 | 0335 | 0335 | 0334 | 0333 | 0336 | 0337 | 0334 | 0334 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 8 | 8 | 0 | 0 | 1 | 1 | |
| | 9 | 9 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 1 | 1 | 0 | 0 | 0 | 0 | | |
| | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 0 | 0 | 1 | 1 | 7 | 7 | 1 | 1 | 1 | 1 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Cardiomyopathy | | | | | | 1 | | 1 | | 1 | | | 1 | | | 1 | 1 | | | | 6 1.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | 1 | | | | | 1 1.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Parathyroid Gland | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 19 |
| Hyperplasia | | | | | | | | | 2 | | | | | | | | | | 1 | | 2 1.5 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Pars Distalis, Hyperplasia | | | 1 | | 2 | 2 | 3 | 1 | 3 | 1 | 2 | 1 | 2 | 1 | 2 | 3 | 1 | | 2 | 2 | 16 1.8 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 |
| Ectopic Thymus | | | | | | | | X | | | | | | | | | | | | | 1 |
| Ultimobranchial Cyst | X | X | | | | X | | | | X | | | X | | | X | | | | | 6 |
| C-cell, Hyperplasia | 1 | | | | 1 | 2 | | 1 | 1 | 1 | 1 | 1 | | | 2 | 1 | | 1 | 1 | | 13 1.2 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | 1 |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|

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RATS FEMALE
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|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-------|
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| ANIMAL ID | 0
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4
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1 | 0
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1 | 0
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4
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2 | 0
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2 | 0
6
6
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2 | 0
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6
1
2 | 0
8
1
1
7 | 0
8
1
7
1 | 1
0
0
1
1 | 1
0
0
1
2 | 1
0
0
1
2 | |
| Inflammation, Suppurative Duct, Dilatation | | | | | | 4 | | | | | | | | | | | | | | | 1 4.0 | |
| | | | | | | 4 | | | | | | | | | | | | | | | | 1 4.0 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Atrophy | 1 | 1 | | | 2 | 4 | 4 | | 4 | | 2 | 1 | 1 | 2 | | | | | 1 | 2 | 12 2.1 | |
| Diestrus | X | | | | X | | | | X | X | X | | X | X | X | X | | | | X | 11 | |
| Metestrus | | X | X | X | | | | | | | | X | | | | | | | X | | 5 | |
| Proestrus | | | | | | | | | | | | | | | | | X | | | | 1 | |
| Bursa, Cyst | | | | | | | | | X | | | | | | | | | | | | 1 | |
| Corpus Luteum, Cyst | | | | | | | | | X | | | | | | | | | | | | 1 | |
| Corpus Luteum, Depletion | | | | | | X | X | | X | | | | | | | | | | | | 3 | |
| Follicle, Cyst | | X | X | X | X | X | X | X | X | | X | | | | | | | | X | X | 11 | |
| Interstitial Cell, Hypertrophy | | | | | 2 | 2 | | 2 | | | | | | | | | | | | | 3 2.0 | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Apoptosis | | | | | | 4 | | | | | | | | | | | | | | | 1 4.0 | |
| Diestrus | X | | X | | X | | | X | | X | X | | | X | X | | | | | X | 9 | |
| Estrus | | | | | | X | | X | | | | | | | | | | | | | 2 | |
| Metestrus | | X | | X | | X | | | X | | | X | X | | | | | | X | | 7 | |
| Proestrus | | | | | | | | | | | | | | | | X | X | | | | 2 | |
| Endometrium, Cyst | | | | | | | | | | X | | X | X | | | | | | | | 3 | |
| Endometrium, Hyperplasia | | | | | 2 | | | 2 | | | 2 | 2 | | 2 | | | | | | 2 | 6 2.0 | |
| Endometrium, Hyperplasia, Cystic | | | | | | | | | 4 | | | | | | | | | | | | 1 4.0 | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | 3 | | | | 1 3.0 | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Diestrus | | | X | X | X | | | X | | X | X | | | X | X | | | | | X | 9 | |
| Estrus | | | | | | | X | X | | | | | | | | | | | | | 2 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 03
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 6 | 4 | 5 | 4 | 6 | 6 | 4 | 4 | 4 | 3 | 6 | 6 | 5 | 5 | 4 | 3 | 6 | 7 | 4 | 4 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | | | |
| | 1 | 1 | 1 | 1 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 8 | 8 | 0 | 0 | | | |
| | 9 | 9 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 1 | 1 | 0 | 0 | | | |
| | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 0 | 0 | 1 | 1 | 7 | 7 | 1 | 1 | | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

| | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|---|---|--|---|---|---|---|---|---|--|---|---|---|--|--|--|---|---|---|-------|
| Metestrus | X | X | | | | X | | | | X | | | X | X | | | | | X | | 7 |
| Proestrus | | | | | | | | | | | | | | | | | | X | X | | 2 |
| Epithelium, Hyperplasia | | | | | | | | 2 | 3 | | | | | | | | | | | | 2 2.5 |
| Epithelium, Mucification | | | 4 | | 4 | | 2 | 3 | 4 | | | 3 | | 4 | | | | | | 3 | 8 3.4 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Myeloid Cell, Hyperplasia | | | | 3 | | | | | | | | | | | | | | | | | 1 3.0 | |
| Lymph Node, Mesenteric | | | | + | | | | | | | | | | | | | | | | | 1 | |
| Degeneration, Cystic | | | | 4 | | | | | | | | | | | | | | | | | 1 4.0 | |
| Infiltration Cellular, Plasma Cell | | | | 4 | | | | | | | | | | | | | | | | | 1 4.0 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Hematopoietic Cell Proliferation | | | | 3 | | | | | 2 | 1 | | | | | | | | | | | 3 2.0 | |
| Pigmentation | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 3 | 4 | 3 | 3 | 3 | | 20 2.6 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Atrophy | 3 | 2 | 4 | 4 | 4 | 2 | | 3 | 4 | 2 | 3 | 2 | 3 | 4 | 2 | | 4 | 3 | 4 | 4 | 18 3.2 | |
| Cyst Multilocular | | | | | | | X | | | | | | | | | | | | | | 1 | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|--|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | |
| Hyperplasia, Lobular | 1 | | | | 1 | | | 2 | 2 | | | 2 | | | 1 | | | | | 1 | 7 1.4 | |
| Duct, Dilatation | | | | | | | | | 2 | | | | | | | | | | | | 1 2.0 | |

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 03
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 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | | |
| | 6 | 4 | 5 | 4 | 6 | 6 | 4 | 4 | 4 | 3 | 6 | 6 | 5 | 5 | 4 | 3 | 6 | 7 | 4 | 4 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | | | |
| | 1 | 1 | 1 | 1 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 8 | 8 | 0 | 0 | | | |
| | 9 | 9 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 1 | 1 | 0 | 0 | | | |
| | 8 | 8 | 9 | 9 | 0 | 0 | 4 | 4 | 5 | 5 | 6 | 0 | 0 | 1 | 1 | 7 | 7 | 1 | 1 | | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

Bone, Femur + **20**

NERVOUS SYSTEM

Brain, Brain Stem + **20**

Brain, Cerebellum + **20**

Brain, Cerebrum + **20**

RESPIRATORY SYSTEM

NONE

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|---------------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 20 | | |
| Casts Protein | | | | 1 | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Mineralization | 1 | 1 | | 2 | | | 2 | 2 | | 1 | 1 | | 2 | 1 | 2 | 3 | 1 | 2 | | | | | 13 1.6 |
| Nephropathy | | | 1 | | | 1 | | 2 | 1 | 2 | | 1 | | 1 | 2 | 1 | 1 | 2 | 2 | | | | 12 1.4 |
| Cortex, Cyst | | X | | | | X | | X | | | | X | X | | X | | | | X | | | | 7 |
| Renal Tubule, Cyst | | X | | | | X | | X | | | | X | X | | | | | X | | | | | 6 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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Bisphenol A

CAS Number: 80-05-7

1 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---|-----------------|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | |
| | 6 | 6 | 6 | 5 | 5 | 5 | 6 | 5 | 4 | 4 | 3 | 3 | 6 | 6 | 4 | 4 | 4 | 3 | 4 | 5 | 5 | 5 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | | | |
| | 4 | 4 | 5 | 5 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 1 | 1 | 1 | 1 | | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | | |
| | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|--|--|--|--|--|--|--|--|---|---|--|--|--|--|--|---|---|--|--|--|----------|------------|------------|
| Cardiomyopathy | 1 | 2 | 1 | | | | | | | | | 1 | 2 | | | | | | 1 | 1 | | | | 7 | 1.3 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | 1 | | | | | 1 | 1.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | 1 | | | | | 1 | 1.0 |
| Myocardium, Necrosis | | | | | | | | | | | | | | | | | | | | 2 | | | | | 1 | 2.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|------------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Vacuolization Cytoplasmic | 2 | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Pars Distalis, Cyst | | | | | | | | | | | | X | | | | | | | | | X | | | 2 | |
| Pars Distalis, Hyperplasia | 2 | 1 | 1 | 2 | | 2 | 1 | 2 | 2 | 2 | 1 | 1 | 3 | | 2 | 2 | | 1 | | 1 | 1 | 1 | | 18 | 1.6 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Ultimobranchial Cyst | X | | | | | X | | | | | X | | | | X | | | X | | | | | | 6 | |
| C-cell, Hyperplasia | | 2 | | | | 1 | 1 | | 1 | 1 | | 1 | 1 | | | | 1 | | | | | 1 | | 9 | 1.1 |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|--|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|--|

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|--|
| Fat Pad, Ovarian/parametrial | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-----------------------|-----------------------|-----------------------|----------------------------|-----------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
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| Necrosis | 3 | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Ovary | + | | | | | | | | | | | | | | | | | | | | 22 |
| Atrophy | 1 | 1 | | 1 | 1 | | 4 | 4 | | | | 4 | 2 | 2 | 4 | 2 | 2 | 4 | 4 | 2 | 15 2.5 |
| Diestrus | X | X | | X | | X | | | | X | X | X | | X | X | | X | X | X | | 13 |
| Metestrus | | | X | | | X | | | | | | | | | | | | | | X | 2 |
| Proestrus | | | | | X | | | | | | | | | | | | | | | | 1 |
| Corpus Luteum, Depletion | | | | | | | X | X | | | | X | | | X | | | X | X | | 6 |
| Follicle, Cyst | X | X | X | X | X | X | X | X | X | | X | X | X | X | X | X | | X | X | X | 18 |
| Interstitial Cell, Hypertrophy | | | | | | 2 | 2 | | | | | 3 | | | 2 | | | | | 2 | 5 2.2 |
| Oviduct | + | | | | | | | | | | | | | | | | | | | | 22 |
| Uterus | + | | | | | | | | | | | | | | | | | | | | 22 |
| Apoptosis | | | | | | | 4 | 4 | | | | 4 | | | 4 | | | | 2 | 4 | 6 3.7 |
| Diestrus | X | X | | X | | | | | X | | X | | X | X | | X | X | | | X | 10 |
| Estrus | | | | | | X | X | | | | | X | | | X | | | | X | X | 6 |
| Metaplasia, Squamous | | | | | | | 2 | | | | | 2 | | | 2 | | | | 1 | | 4 1.8 |
| Metestrus | | | X | | X | X | | | | | | | | | | | | X | | | 4 |
| Proestrus | | | | | X | | | | | | X | | | | | | | | | | 2 |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | 2 | | | | 2 | | | | | | 2 2.0 |
| Endometrium, Hyperplasia | 3 | 2 | | 2 | | | | | | 2 | 3 | | | 2 | 2 | | 2 | 2 | | 2 | 9 2.2 |
| Endometrium, Hyperplasia, Cystic | | | | 1 | | | 2 | 1 | | | 2 | | | 2 | | | | 2 | 4 | | 7 2.0 |
| Vagina | + | | | | | | | | | | | | | | | | | | | | 22 |
| Diestrus | X | X | | X | | | | | X | | X | | X | X | | X | X | | | X | 10 |
| Estrus | | | | | | X | X | | | | | X | | | X | | | | X | X | 6 |
| Metestrus | | | X | | X | X | | | | | | | | | X | | | X | | | 4 |
| Proestrus | | | | | X | | | | | X | | | | | | | | | | | 2 |
| Epithelium, Hyperplasia | | | | | | 2 | 3 | | | | 3 | | | 3 | | | | 3 | 3 | | 6 2.8 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 1 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:20:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-----------------------|-----------------------|-----------------------|----------------------------|----------------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
3
6
6 | 0
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6 | 0
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6 | 0
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5 | 0
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5 | 0
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4 | 0
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4 | 0
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4 | 0
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5 | 0
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6
5 | |
| ANIMAL ID | 0
2
1
4
1 | 0
2
1
4
1 | 0
2
1
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1 | 0
2
1
5
6
1 | 0
2
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2 | 0
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6
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6 | 0
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6 | 0
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6 | 0
2
4
6
7 | 0
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4
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8 | 0
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8 | 0
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8 | 0
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4
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8 | 0
2
4
6
8 |

| | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|--|---|--|--|--|--|--|---|---|---|---|---|--|---|---|--|--|---|--|---------------|
| Epithelium, Mucification | 4 | | 3 | | | | | | 2 | 4 | 3 | 2 | 4 | | 4 | 3 | | | 4 | | 10 3.3 |
|--------------------------|---|--|---|--|--|--|--|--|---|---|---|---|---|--|---|---|--|--|---|--|---------------|

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|---------------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | 1 | 3 | | | | 2 2.0 | |
| Pigmentation | 3 | 4 | 3 | 3 | 3 | 2 | 2 | 2 | 1 | 2 | 3 | 2 | | 4 | 4 | 2 | 3 | 3 | | 3 | 3 | 20 2.8 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Atrophy | 4 | 3 | | 4 | 4 | 3 | 2 | 2 | 4 | | | 2 | 4 | | | 4 | 2 | 4 | | 4 | 3 | 16 3.3 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---|---------------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Hyperplasia, Lobular | | | | | | | | 1 | 1 | 1 | 1 | | 1 | 2 | 2 | 3 | | 3 | 2 | | 1 | 2 | 12 1.7 |
| Duct, Dilatation | | | | | | | | | 1 | | | | | | | | | | | | | | 1 1.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | 2 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |
| Compression | | | | | | | | | | | | | | | 4 | | | | | | | 1 4.0 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 03

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 |
| ANIMAL ID | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | |
| | 4 | 4 | 5 | 5 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 7 | 7 | 8 | 8 | 1 | 1 | 1 | 2 | 2 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 | | |
| Cyst | | | | | | X | | | | | | | | | | | | | | | | | 1 | |
| Metaplasia, Osseous | | 2 | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Ventricle, Dilatation | | | | | | | | | | | | 3 | | | | | | | | | | | 1 | 3.0 |
| Nerve Trigeminal | | | | | | | | | | | | | + | | | | | + | | | | 2 | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | + | | | | + | | | | 2 | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | + | | | | + | | | | 2 | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | + | | | | + | | | | 2 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | 2 | | | | | 1 | 2.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | 1 | | | | | 1 | 1.0 |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | + | | | | + | | | | 2 | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | 2 | | | | | 1 | 2.0 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | + | | | + | | | | 2 | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|--|--|--|--|--|---|--|--|--|--|---|---|--|---|---|--|---|--|--|--|---|---|-----|
| Lung | | | | | | | + | | | | | | + | | | | | + | | | | 4 | | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | 2 | | | | | | | | | | | 1 | 2.0 |
| Nose | | | | | | | | | | | | | | | + | | | + | | | | 2 | | |
| Trachea | | | | | | | | | | | | | | | | + | | + | | | | 2 | | |

SPECIAL SENSES SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
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| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------------|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | DAY ON TEST | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 3 | 3 | 3 | 3 | 0 | 3 | 3 | 3 | |
| SPRAGUE DAWLEY (NCTR) | RATS FEMALE | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 5 | 6 | 6 | 6 | 6 | 6 | 4 | 6 | 6 | 6 | |
| | | 6 | 6 | 6 | 5 | 5 | 5 | 6 | 5 | 4 | 4 | 3 | 3 | 6 | 6 | 4 | 4 | 4 | 3 | 4 | 5 | 5 | 5 | |
| F1 25000StDose F | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | |
| | | 4 | 4 | 5 | 5 | 6 | 6 | 0 | 0 | 1 | 1 | 2 | 2 | 6 | 6 | 7 | 7 | 8 | 8 | 1 | 1 | 1 | 2 | 2 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |

NONE

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 22 |
| Casts Protein | 1 | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Mineralization | 1 | | 1 | | | | 1 | 1 | | 2 | | | 2 | | 1 | | 2 | | | 1 | 1 | 1 | 11 1.3 |
| Nephropathy | | | 2 | 1 | 1 | 1 | 1 | | 1 | 1 | | | 1 | 1 | | 1 | 3 | | | 4 | | 1 | 13 1.5 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | 4 | | | 1 4.0 |
| Cortex, Cyst | | | | X | | | | X | X | | | | | | | | | | | | | | 3 |
| Interstitial Cell, Hyperplasia | | | | | | | | | | | | | | 2 | | | | | | | | | 1 2.0 |
| Renal Tubule, Cyst | | | X | | | X | X | | | | | | X | | | X | | | | | | | 5 |
| Renal Tubule, Dilatation | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |

*** END OF REPORT ***

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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Lab: NCTR

NTP Study Number: C10034
Lock Date: 08/16/2017
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: 09/29/2017

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | 050 | 072 | 075 | 078 | 077 | 077 | 077 | 054 | 062 | 003 | 005 | 005 | 005 | 066 | 078 | 063 | 051 | 055 | 072 | 078 | 046 | 068 | 062 | 058 | 072 | ANIMAL ID | males
(cont...) |
| | ANIMAL ID | 0001 | 0002 | 0003 | 0004 | 0005 | 0006 | 0007 | 0008 | 0009 | 0010 | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | A | A | | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + |
| Intestine Small, Ileum | A | A | | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | A | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | X | | | | | X | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | 1 | | | | | 3 | | | 2 | 1 | | 2 | | | | 1 | 1 | 1 | | 1 | 1 | | 2 | |
| Fatty Change | | | | 2 | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | X | | | X | | | | | | X | | | | | | | | | | | | | |
| Infiltration Cellular, Mononuclear Cell | | 1 | | 2 | 2 | 2 | 2 | | 1 | | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | | 2 | | 1 | | 2 | 1 |
| Inflammation, Chronic Active | | | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | 3 | | | | | | | | | 2 | 2 | | | | | | 2 | 1 | 1 | | | 1 | | 1 | |
| Bile Duct, Hyperplasia | | | | 2 | | | 2 | | | | | 3 | 1 | | 1 | 2 | | | | 2 | 2 | 1 | | 2 | 1 | |
| Biliary Tract, Cyst | | | | | | | | | | | | | | | | | | | | | | | X | | | |
| Biliary Tract, Fibrosis | | | | 2 | 1 | | | 2 | | | | 2 | 1 | | 1 | | | | | | | | | | 1 | |
| Hepatocyte, Necrosis | | | | | | | | 4 | 2 | | | | | | | | | | | | | | | | | |
| Oval Cell, Hyperplasia | | 1 | | | 2 | 1 | | | | | | | | | | | | | | | | 1 | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
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| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | | |
|--|-----------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|-------|-------|-------|
| | | 050 | 072 | 075 | 078 | 077 | 077 | 077 | 054 | 062 | 060 | 055 | 055 | 055 | 066 | 077 | 066 | 055 | 055 | 072 | 077 | | 044 | 066 | 066 | 055 | 077 |
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | ANIMAL ID | 00011 | 00012 | 00021 | 00022 | 00031 | 00032 | 00041 | 00042 | 00051 | 00052 | 00061 | 00062 | 00071 | 00072 | 00081 | 00082 | 00091 | 00092 | 00101 | 00102 | 00111 | 00112 | 00121 | 00122 | 00131 | 00132 |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Infiltration Cellular, Lymphocyte | | | 2 | 1 | 1 | 2 | 1 | 2 | | 3 | | 3 | 2 | | 3 | 3 | 1 | 2 | 1 | | 2 | | 3 | | 2 | 2 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Lipomatosis | | | 3 | | | | | 3 | | | | | | | 4 | | | | | | 3 | | | | | | |
| Pigmentation | | 1 | 1 | 2 | 1 | | | | | 1 | 1 | 2 | 2 | | 2 | 1 | 1 | 1 | 1 | | 1 | | 1 | | 2 | 1 | |
| Acinus, Degeneration | | 2 | 3 | 2 | 2 | 2 | 2 | 4 | | 4 | | 4 | 4 | | 4 | 4 | 1 | 2 | 1 | 1 | 3 | 2 | 3 | | 4 | 4 | |
| Artery, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Artery, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Artery, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Stomach, Forestomach | | + | | + | | | | + | + | + | + | + | + | + | | + | + | + | | | + | + | + | + | | | |
| Hyperplasia, Basal Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | + | | + | | | | + | + | + | + | + | + | + | | + | + | + | | | A | + | A | + | | | |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|--------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|
| | 050 | 072 | 075 | 078 | 077 | 077 | 077 | 054 | 069 | 067 | 053 | 053 | 055 | 056 | 076 | 063 | 052 | 055 | 072 | 077 | 046 | 064 | 066 | 057 | 072 | |
| ANIMAL ID | 0001 | 0002 | 0001 | 0002 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0004 | 0004 | 0004 | 0004 | 0004 | |

Mineralization

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cardiomyopathy | 3 | 3 | 3 | 2 | 2 | 1 | 2 | 1 | 2 | | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | | 1 | 1 | 2 | 2 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrium, Dilatation | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Ventricle, Dilatation | 4 | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | 4 | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | 2 | | | 2 | 2 | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | 1 | | | | | | | | | 1 | 2 | | |
| Hypertrophy | | | | | | | | | | | | 2 | | | | | | | | 1 | | | | | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | 2 | | | | | | | 3 | 1 | | 1 | 2 | | 3 | | 2 | | | | | 1 | 2 | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | 2 | | | | | | | 1 | | 1 | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 3 | | | 4 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | | 2 | | | 2 | 2 | | | 2 | | | | | | 1 | 2 | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|--------------------|-----|-----|-----|
| | 050 | 072 | 075 | 078 | 077 | 077 | 077 | 054 | 062 | 063 | 058 | 057 | 057 | 066 | 078 | 063 | 051 | 056 | 072 | 078 | | | 046 | 068 | 062 |
| | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 000 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 002 | 004 | 004 | 004 | 004 | 004 |
| | 001 | 001 | 002 | 003 | 003 | 004 | 004 | 005 | 005 | 007 | 008 | 008 | 009 | 009 | 009 | 001 | 002 | 002 | 001 | 002 | 003 | 003 | 003 | 003 | 005 |
| | 111 | 221 | 222 | 221 | 223 | 224 | 221 | 222 | 221 | 225 | 227 | 221 | 222 | 222 | 221 | 222 | 221 | 222 | 221 | 222 | 221 | 223 | 223 | 224 | 221 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + |
| Angiectasis | | 4 | 4 | | | 4 | | | 4 | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | 4 | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | 2 | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | 4 | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Cyst | | | | | | | | | | | | X | X | | | | | X | | | | | X | | | |
| Pars Distalis, Cyst Multilocular | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | 3 | | | | | 2 | | | | | | 3 | | 3 | | | | 2 | | | | 3 | |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | |
| Ultimobranchial Cyst | | | | | | X | | | | | | | | X | X | | | | | | | | | | | |
| C-cell, Hyperplasia | | 1 | | 3 | | | 1 | | | | | | 1 | | 2 | | | | | | | | | | | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|
| Tissue NOS | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | + | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bulbourethral Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Coagulating Gland | A | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | |
| Cyst, Mucinous | | | | | | | | X | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|--------------------|-----|-----|-----|-----|
| | 050 | 072 | 075 | 078 | 077 | 077 | 077 | 054 | 062 | 063 | 053 | 053 | 055 | 066 | 078 | 063 | 051 | 056 | 072 | 078 | | | 048 | 064 | 067 | 058 |
| Inflammation, Suppurative | | | | | | | | 4 | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | 3 | | | | | | | | | | | | | | | | | | | |
| Lumen, Dilatation | | | | | | | | | | | | | | 3 | 4 | | | | | | | | | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Exfoliated Germ Cell | | 3 | | | 1 | | 2 | | | | | | | | | | | 2 | | | 1 | | | | | |
| Hypospermia | | | 4 | | 4 | | | | 4 | | | | | 4 | | | | | | | 4 | | | | | |
| Infiltration Cellular, Lymphocyte | | | 1 | | | | | | 2 | | | | | | | | | | | | | | | | 1 | |
| Epithelium, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat Pad, Epididymal | | | | | | | | | + | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | 4 | | | | | | | | | | | | | | | | | |
| Preputial Gland | | + | + | | | + | + | | | | | | | | | | | + | + | | | | | | + | |
| Abscess | | | | | | | | | | | | | | | | | | | 4 | | | | | | | |
| Atrophy | | | | | | 3 | | | | | | | | | | | | | | | | | | 3 | | |
| Hyperkeratosis | | 4 | | | | | 4 | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | 4 | | | 2 | 4 | | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | | 4 | 4 | | | | 4 | | | | | | | | | | | 4 | | | | | | | | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | 4 | | | | | | | | | | | | | | | | | | | | | |
| Cyst, Mucinous | | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Fibrosis | | | | 2 | | | | | | | | | | 2 | | | | 2 | | | | | | | | |
| Infiltration Cellular, Lymphocyte | 2 | | 1 | 2 | 2 | 1 | 2 | | 1 | | 1 | 1 | | 1 | 1 | | 1 | | 1 | 2 | | 3 | | 1 | | |
| Inflammation, Suppurative | 2 | 2 | 2 | 2 | 2 | 1 | 3 | 4 | 2 | | 2 | 2 | 1 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 3 | 2 | 2 | 2 | |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | 4 | | | | | | | | | | | | | | | | | | | | 3 | |
| Fibrosis | 2 | | | | 4 | 2 | | | 4 | | | | | | | | | 2 | | | | 4 | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
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Experiment Number: 10034 - 04

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|--------------------|-----|-----|-----|
| | 050 | 072 | 075 | 078 | 077 | 077 | 077 | 077 | 054 | 062 | 060 | 057 | 055 | 055 | 066 | 077 | 066 | 055 | 055 | 072 | | | 077 | 044 | 066 |
| Infiltration Cellular, Lymphocyte | 3 | | | | 3 | 2 | 1 | | 4 | 2 | 1 | | | | | | | 1 | 1 | 3 | | 4 | | 1 | 1 |
| Inflammation, Suppurative | 3 | | | | 2 | | | | 4 | 4 | | | | 1 | | | | 1 | | | | 4 | 4 | | |
| Mineralization | | | | | 3 | | | | | | | | | | | | | | | | | | 4 | | |
| Polyarteritis | | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | 1 | 2 | | 2 | 2 | | | | | | | 3 | | | | | | 2 | | | | | |
| Seminal Vesicle | A | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + |
| Atrophy | | | | | 4 | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | 4 | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | 4 | | | | | 3 | | | | | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Testes | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Polyarteritis | | 2 | 4 | | 1 | | 4 | | 4 | | | | | | | | | | | | | | | 4 | |
| Seminiferous Tubule, Degeneration | | 1 | 4 | 1 | 4 | 2 | 2 | 1 | 4 | | 1 | 1 | 1 | 4 | | | | 1 | 3 | 1 | | 3 | 4 | | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + |
| Hypocellularity | | | | | | 3 | 3 | | | | | | | | | | | | | | 3 | | | | 3 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Myeloid Cell, Hyperplasia | | | | | | | | 2 | | | | | | | | | | 4 | | | | | | 4 | |
| Lymph Node | | | + | + | | + | + | | | | | | | + | | | + | | | | | | + | | |
| Axillary, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | |
| Axillary, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | 3 | | | | | | | | | | | | | | | | 3 | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | 4 | | | | | | 4 | | | | | | | | | | 3 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
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Bisphenol A

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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | | |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|--------------------|-----|-----|-----|-----|-----|
| | 050 | 072 | 075 | 078 | 077 | 077 | 077 | 054 | 062 | 063 | 053 | 053 | 055 | 066 | 078 | 063 | 051 | 055 | 072 | 078 | | | 046 | 064 | 068 | 062 | 058 |
| Renal, Degeneration, Cystic | | | 2 | 4 | | | | | | | | | | | | | | 2 | | | | | | | | 4 | |
| Renal, Hemorrhage | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Hyperplasia, Lymphoid | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | |
| Renal, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Lymph Node, Mandibular
Degeneration, Cystic | + | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Hyperplasia, Lymphoid | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Infiltration Cellular, Plasma Cell | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | | |
| Hematopoietic Cell Proliferation | | 2 | | 1 | | | 1 | 3 | 3 | | 2 | | | | | | 1 | | | | | | | | | 3 | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | 2 | 1 | | 2 | 4 | 4 | 2 | | 1 | | 2 | 3 | | | | | 2 | 1 | 1 | 2 | 1 | | | | | 2 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |
| Hemorrhage | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Hyperplasia, Lobular | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolus, Degeneration | | | 3 | | 3 | 3 | | | | | 3 | 4 | | 4 | 3 | 4 | 4 | | 3 | 4 | 4 | | 3 | 4 | | 3 | |
| Alveolus, Dilatation | | | | | | | 2 | 2 | | | | | | | | | | | | | | | | | | | 2 |
| Duct, Dilatation | 2 | 2 | 3 | 2 | | | 3 | 2 | | 2 | | | | | | | | | | | 2 | | | | | 2 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | | | | |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|--------------------|-----|-----|-----|-----|-----|-----|-----|
| | 050 | 072 | 075 | 078 | 077 | 077 | 077 | 077 | 054 | 062 | 063 | 053 | 053 | 055 | 055 | 066 | 076 | 066 | 055 | 055 | | | 072 | 072 | 046 | 066 | 064 | 068 | 068 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 1 | 1 | 3 | 3 | 3 | 4 | 4 | 5 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Abscess | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Granulomatous Epithelium, Foot, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Edema | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Brain, Brain Stem | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Compression | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebellum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebrum | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Gliosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | |
|---|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|------|------|------|
| | | 050 | 072 | 075 | 078 | 077 | 077 | 077 | 077 | 054 | 069 | 067 | 053 | 059 | 057 | 066 | 072 | 072 | 078 | 046 | 064 | | 067 | 058 | 072 |
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | | 0001 | 0002 | 0001 | 0002 | 0003 | 0004 | 0001 | 0002 | 0001 | 0002 | 0003 | 0004 | 0001 | 0002 | 0003 | 0004 | 0001 | 0002 | 0003 | 0004 | 0001 | 0002 | 0003 | 0004 |

Hemorrhage
 Mineralization
 Necrosis
 Ventricle, Dilatation

1 2 1

Nerve Trigeminal
 Axon, Degeneration

+ +

Peripheral Nerve, Sciatic
 Axon, Degeneration

+ +

Peripheral Nerve, Tibial
 Axon, Degeneration

+ +

Spinal Cord, Cervical

+ +

Spinal Cord, Lumbar
 Axon, Degeneration

+ +

Spinal Cord, Thoracic

+ +

RESPIRATORY SYSTEM

Lung
 Congestion
 Foreign Body
 Infiltration Cellular, Histiocyte
 Inflammation, Granulomatous
 Inflammation, Chronic
 Inflammation, Chronic Active

+ +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | | 5 | 7 | 7 | 7 | 7 | 7 | 5 | 6 | 0 | 5 | 5 | 5 | 6 | 7 | 6 | 5 | 5 | 7 | 7 | 4 | 6 | 6 | 6 | 5 | 7 | 7 | |
| | | 0 | 2 | 2 | 2 | 2 | 2 | 4 | 9 | 7 | 8 | 7 | 6 | 5 | 2 | 1 | 2 | 9 | 2 | 2 | 8 | 8 | 6 | 4 | 6 | 4 | 7 | 8 |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 3 | 4 | 4 | 4 | 5 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | |

males
(cont...)

Metaplasia, Osseous
Necrosis

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|---|--|--|---|--|---|---|---|--|---|--|---|--|---|--|--|--|---|---|---|--|---|--|--|--|
| Nose | + | | + | | | + | | + | + | A | | + | | + | | + | | | | + | + | A | | + | | | |
| Autolysis | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Hyperplasia, Goblet Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Transitional Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Upper Molar, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Upper Molar, Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Trachea + + + + + A + + + + + + + + + + + + + + + + A +

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cataract | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retina, Autolysis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

Duct, Dilatation

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Accumulation, Hyaline Droplet | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Casts Protein | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | | | | 1 | | | | 3 | | | | | 1 | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nephropathy | 4 | 4 | 4 | 3 | 1 | 2 | 4 | 3 | 4 | | 2 | 2 | 4 | | 1 | 4 | 1 | 2 | 2 | 2 | | 1 | 4 | 1 | 4 | | | | | | | | | | | | | | | | | |
| Cortex, Cyst | | X | | X | | X | X | | | | | | X | | X | | | X | X | | X | | | | | | | | | | | | | | | | | | | | | |
| Pelvis, Dilatation | | | | | | | | 4 | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal Tubule, Cyst | | | | | | | | | | | | | | | | X | | | | X | | | | | | | | | | | | | | | | | | | | | | |
| Transitional Epithelium, Hyperplasia | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Urinary Bladder | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Lumen, Dilatation | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |

males
(cont...)

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
| | 0721 | 0487 | 0527 | 0560 | 0728 | 0778 | 0778 | 0226 | 0246 | 0226 | 0226 | 0210 | 0237 | 0277 | 0266 | 0445 | 0466 | 0552 | 0622 | 0673 | | 0649 | 0228 | 0260 |
| ANIMAL ID | 04352 | 04336 | 04333 | 04333 | 04344 | 04364 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04388 | 04388 | 04388 | 04388 | 04388 | 04388 | 04388 | 04388 | 04388 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus | + | + | + | + | | | | + | + | | | + | + | + | | | | + | + | + | + | + | + | 35 |
| Intestine Large, Colon | + | + | + | + | | | | + | A | | | + | + | + | | | | + | A | + | + | + | + | 29 |
| Intestine Small, Ileum | + | + | + | + | | | | + | A | | | + | + | + | | | | + | A | A | + | + | + | 26 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | | | | | 2 | | | | | | | | | | 1 2.0 |
| Basophilic Focus | | | | | | | | | | | | | X | | | | | X | | X | X | | | 5 |
| Clear Cell Focus | | | | | X | X | X | | | | | | | X | | | | | X | | | | | 11 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Degeneration, Cystic | | | | | 1 | | 1 | | 1 | 2 | | | | 1 | | | 1 | | 2 | 1 | 2 | 1 | | 21 1.4 |
| Fatty Change | | | | | | | 3 | 4 | | | | | | | 4 | | | | | | | | | 4 3.3 |
| Hepatodiaphragmatic Nodule | | | | | | | X | | | | | | | | | X | | | | | | X | | 6 |
| Infiltration Cellular, Mononuclear Cell | 1 | | 1 | 2 | 1 | 1 | 1 | | | 2 | | 2 | 1 | 2 | 2 | 1 | | | 1 | 2 | 1 | | 1 | 35 1.4 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | 1 | | | 2 1.0 |
| Mixed Cell Focus | | | | | | | | | | | | | | | | X | | | | | | | | 1 |
| Tension Lipidosis | 3 | | | | | | | | | | 4 | | | | 4 | | | | | | | | | 3 3.7 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | 1 | | 3 | 3 | | | | | | 1 | | | 12 1.8 |
| Bile Duct, Hyperplasia | | | | | | | | | | | | 1 | | | | | | | | 2 | 1 | | 1 | 16 1.6 |
| Biliary Tract, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Biliary Tract, Fibrosis | | | | | | 1 | 1 | | | 2 | | | | 1 | | | | | | 1 | 1 | | | 13 1.3 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 2 3.0 |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 4 1.3 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
| | 0721 | 0487 | 0527 | 0560 | 0728 | 0778 | 0778 | 0778 | 0226 | 0446 | 0770 | 0770 | 0770 | 0667 | 0778 | 0667 | 0667 | 0445 | 0569 | 0667 | | 0774 | 0664 | 0445 | 0226 |
| ANIMAL ID | 04352 | 04336 | 04333 | 04333 | 04344 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 |

Oral Mucosa + 1

Pancreas + 50
 Basophilic Focus X 2
 Infiltration Cellular, Lymphocyte 3 3 2 2 1 1 2 1 2 2 2 2 2 3 1 2 1 3 36 2.0
 Inflammation, Chronic Active 1 2.0
 Lipomatosis 4 4 2 7 3.3
 Pigmentation 2 2 1 1 1 1 2 2 2 2 2 2 2 1 2 29 1.4
 Acinus, Degeneration 3 3 4 2 4 3 1 1 3 3 2 3 3 3 4 3 4 1 3 1 4 42 2.8
 Artery, Fibrosis 1 4.0
 Artery, Inflammation, Chronic Active 1 2.0
 Artery, Mineralization 4 1 4.0
 Artery, Pigmentation 1 3.0

Stomach, Forestomach + 36
 Hyperplasia, Basal Cell 3 1 3.0
 Inflammation, Chronic Active 2 1 2.0
 Mineralization 3 1 3.0
 Ulcer 2 1 2.0
 Epithelium, Hyperplasia 4 1 4.0

Stomach, Glandular + 34
 Edema 3 1 3.0
 Mineralization 4 1 4.0
 Necrosis 4 1 4.0
 Epithelium, Hyperplasia 4 2 4.0

CARDIOVASCULAR SYSTEM

Blood Vessel + 50

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
| | 0721 | 0487 | 0527 | 0560 | 0728 | 0778 | 0778 | 0226 | 0426 | 0770 | 0770 | 0677 | 0778 | 0677 | 0778 | 0665 | 0459 | 0663 | 0774 | 0645 | | 0228 |
| ANIMAL ID | 04352 | 04336 | 04333 | 04333 | 04344 | 06666 | 06666 | 06666 | 06666 | 06666 | 06666 | 06666 | 06666 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|--|---|--|---|---|---|---|--|---|---|---|---|----|-------|---|---|--------|
| Mineralization | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 | | | |
| Heart | + | | | | | | | | | | | | | | | | | | | | 50 | | | | |
| Cardiomyopathy | 3 | 2 | 2 | 4 | 2 | 2 | 1 | 3 | | 2 | | 2 | 1 | 3 | 2 | | 2 | 3 | 1 | 1 | 3 | 3 | 1 | 3 | 44 2.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 | | | |
| Atrium, Dilatation | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | | |
| Ventricle, Dilatation | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|--------|
| Adrenal Cortex | + | | | | | | | | | | | | | | | | | | | | 50 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | 4 | 3 | 2 3.5 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | 4 | | 4 2.5 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | 1 | | 6 1.7 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | 4 | | 1 4.0 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | 3 | 1 1 | 18 1.8 |
| Adrenal Medulla | + | | | | | | | | | | | | | | | | | | | | 50 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | 4 | | 1 4.0 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 | 5 1.4 |
| Islets, Pancreatic | + | | | | | | | | | | | | | | | | | | | | 50 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 2 3.5 |
| Parathyroid Gland | + | | | | | | | | | | | | | | | | | | | | 49 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | 2 | | 11 1.9 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0721 | 0487 | 0527 | 0560 | 0728 | 0778 | 0778 | 0226 | 0446 | 0770 | 0770 | 0770 | 0637 | 0778 | 0667 | 0449 | 0559 | 0663 | 0774 | 0664 | | 0426 | 0604 |
| ANIMAL ID | 04352 | 04336 | 04333 | 04333 | 04344 | 04364 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04366 | 04388 | 04388 | 04388 | 04388 | 04388 | 04388 | 04388 | 04388 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|-------|
| Pituitary Gland | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Angiectasis | | | | | | | | | | | | | 4 | | | | | | | | | 4 | | 6 4.0 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Pars Distalis, Cyst | | | | | | | | | | | X | X | | X | | | | | | | X | | | 8 | |
| Pars Distalis, Cyst Multilocular | | | | | X | | | | | | X | | | | | | | | | | | | | 2 | |
| Pars Distalis, Hyperplasia | | | 2 | 2 | | | 1 | | | | | | | | | | 1 | | | | | 1 | | 11 2.1 | |
| Pars Distalis, Hypertrophy | | | | | | | 2 | | | | | | | 2 | | | | 1 | | | | | | 4 1.8 | |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 46 |
| Ultimobranchial Cyst | | | | X | | | X | | | | | | | X | | | | | | | | | | | 7 |
| C-cell, Hyperplasia | | | | 3 | | | | 1 | | | | | | | 2 | | | | | | 1 | | | | 9 1.7 |
| Follicular Cell, Hyperplasia | 2 | | | | 2 | | 3 | | | | | | | | | | | | | | | | | | 3 2.3 |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-------|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bulbourethral Gland | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | 47 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Cyst, Mucinous | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Lab: NCTR

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RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-----|
| | 0721 | 0487 | 0527 | 0560 | 0728 | 0778 | 0778 | 0226 | 0446 | 0770 | 0770 | 0770 | 0677 | 0778 | 0677 | 0665 | 0459 | 0663 | 0727 | 0664 | | 0426 | 0580 | 0604 | |
| ANIMAL ID | 04352 | 04436 | 04436 | 04436 | 04436 | 06661 | 06666 | 06666 | 06666 | 06666 | 06666 | 06666 | 06666 | 06666 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | 4 | 2 4.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.5 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Exfoliated Germ Cell | | | 1 | | | | | | | | | | | | 1 | 1 | | | | | 4 | 2 | | 10 | 1.8 |
| Hyospermia | | | | 4 | | | 4 | 4 | | | 4 | | | | | | 4 | | | | 4 | | | 11 | 4.0 |
| Infiltration Cellular, Lymphocyte | 1 | | | 1 | | 1 | | 1 | | | | 1 | | | 2 | | | | | 1 | | | | 10 | 1.2 |
| Epithelium, Degeneration | | | | 4 | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Fat Pad, Epididymal | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | 4 | | 2 | 4.0 |
| Preputial Gland | + | | | | + | | | | | + | | | + | | | + | | + | | + | | | | 15 | |
| Abscess | | | | | | | | | | | | | | | 4 | | | | | | | | | 2 | 4.0 |
| Atrophy | | | | | | | | | | | | | | | 3 | | | | | | | | | 3 | 3.0 |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | 3 | | | | | 3 | 3.7 |
| Inflammation, Suppurative | 4 | | | | | | | | | | | 2 | | | | | 4 | | | | 2 | | | 7 | 3.1 |
| Duct, Dilatation | 4 | | | | 4 | | | | | | | 3 | | | | | 4 | | 3 | | 3 | | | 10 | 3.7 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Atrophy | | | | 3 | | | | | | | | | | | | | | | | | | | | 2 | 3.5 |
| Cyst, Mucinous | | | | | | | | | | | X | | | | | | | | | | | | | 2 | |
| Fibrosis | | | 2 | 4 | | | | | | | | | | | | | 2 | | 2 | 4 | | | 2 | 9 | 2.4 |
| Infiltration Cellular, Lymphocyte | 2 | | 1 | 3 | | 1 | 2 | | | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | | 2 | 1 | 4 | | 1 | 33 | 1.5 |
| Inflammation, Suppurative | 2 | 1 | | 4 | | 2 | 3 | | | 3 | 2 | | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 4 | | 1 | 41 | 2.0 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Atrophy | | | 3 | 3 | | | | | | | | | | | | | | | | | | | | 4 | 3.3 |
| Fibrosis | | | | | 3 | 2 | 4 | | | | | 3 | | 2 | 2 | 2 | | | | 4 | | | 3 | 15 | 2.9 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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2) Mild 4) Marked

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Bisphenol A

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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. Ctrl M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-----------|------------|------------|
| | 0721 | 0487 | 0527 | 0560 | 0728 | 0778 | 0778 | 0226 | 0446 | 0770 | 0777 | 0777 | 0667 | 0777 | 0667 | 0776 | 0664 | 0556 | 0667 | 0667 | | 0445 | 0556 | 0662 | 0773 | 0664 | 0445 | 0228 | 0660 | 0444 |
| ANIMAL ID | 04352 | 04433 | 04433 | 04433 | 04433 | 06664 | 06666 | 06666 | 06666 | 06666 | 06666 | 06666 | 06666 | 06666 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | | |
| Infiltration Cellular, Lymphocyte | 1 | | | | 2 | 1 | 3 | 1 | 1 | | | 2 | 2 | 1 | | | | | | | | | | | | 4 | 1 | 3 | 25 | 2.0 |
| Inflammation, Suppurative | | | | | 3 | 1 | 2 | | | | | | | | 1 | | 1 | | | | | | | | | 4 | | 1 | 16 | 2.3 |
| Mineralization | | | | | | | 3 | | | | | | 3 | | | | | | | | | | | | | | | | 4 | 3.3 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | 2 | 3 | | | 3 | | | | 2 | | | | | | | | | | 10 | 2.2 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | A | + | + | + | + | + | A | + | + | + | 44 | | |
| Atrophy | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.5 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | 2 | 4.0 |
| Epithelium, Hyperplasia | | | | | | | | | | 2 | | | | 2 | 2 | | | | 2 | | 2 | | | | | | | | 7 | 2.4 |
| Lumen, Dilatation | 4 | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | 2 | 4.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Polyarteritis | | | | | | 2 | | | | | | | | 2 | | | | | | | 4 | 3 | 2 | | | | | | 12 | 2.8 |
| Seminiferous Tubule, Degeneration | 1 | | 2 | 4 | 1 | 2 | 4 | 4 | 1 | 1 | 4 | 3 | | 1 | 3 | 1 | 1 | 4 | | 1 | 1 | 3 | 2 | 1 | 1 | | | 40 | 2.1 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|------------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Hypocellularity | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 3.0 |
| Necrosis | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Myeloid Cell, Hyperplasia | 4 | | | | | | | | | | 3 | | | | | | | | | | | | | | | 4 | | | 6 | 3.5 |
| Lymph Node | + | + | | + | | | | | | + | + | | | | | | | + | | + | | | | | | + | | | 15 | |
| Axillary, Hyperplasia, Lymphoid | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Axillary, Infiltration Cellular, Plasma Cell | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Lumbar, Degeneration, Cystic | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.5 |
| Lumbar, Hyperplasia, Lymphoid | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3.0 |
| Lumbar, Infiltration Cellular, Plasma Cell | 3 | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 3.6 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
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|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------|
| | 071 | 048 | 052 | 056 | 072 | 077 | 077 | 022 | 044 | 077 | 077 | 077 | 066 | 077 | 077 | 066 | 066 | 044 | 055 | 066 | | 077 | 066 | 044 | 022 | 066 | | |
| ANIMAL ID | 04352 | 04436 | 04433 | 04433 | 04434 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | | | |
| Hemorrhage | 1 | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 1.5 | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 | |
| Ventricle, Dilatation | | | | | | | | | | | | | | 2 | | 2 | | | | 2 | | | | | | | 6 1.7 | |
| Nerve Trigeminal
Axon, Degeneration | | | | | + | | | | | | | | | | | | | | | | | | | | | | 11 | 8 1.9 |
| Peripheral Nerve, Sciatic
Axon, Degeneration | | | | | + | | | | | | | | | | | | | | | | | | | | | | 11 | 1 4.0 |
| Peripheral Nerve, Tibial
Axon, Degeneration | | | | | + | | | | | | | | | | | | | | | | | | | | | | 11 | 1 4.0 |
| Spinal Cord, Cervical | | | | | + | | | | | | | | | | | | | | | | | | | | | | 11 | |
| Spinal Cord, Lumbar
Axon, Degeneration | | | | | + | | | | | | | | | | | | | | | | | | | | | | 11 | 9 2.1 |
| Spinal Cord, Thoracic | | | | | + | | | | | | | | | | | | | | | | | | | | | | 11 | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Lung | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 38 | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 3 4.0 |
| Foreign Body | | | | | X | | | | | | | | | | | | | | | | | | | | | 4 | 4 |
| Infiltration Cellular, Histiocyte | 1 | | | | 2 | | | | | | | | | | | | | | | | | | | | | 4 | 9 2.3 |
| Inflammation, Granulomatous | | | | | 4 | | | | | | | | | | | | | | | | | | | | | 2 | 3 2.7 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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| | 0721 | 0487 | 0527 | 0560 | 0728 | 0778 | 0778 | 0778 | 0226 | 0426 | 0770 | 0770 | 0770 | 0677 | 0778 | 0667 | 0667 | 0459 | 0562 | 0673 | | 0673 | 0495 | 0237 | 0645 | 0239 | 0885 |
| ANIMAL ID | 04352 | 04336 | 04333 | 04337 | 04344 | 04664 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 |
| Metaplasia, Osseous Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | + | + | + | + | | | | | + | + | | | | | | | | | | | | | | | | | |
| Autolysis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 3 | | | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Respiratory Epithelium, Hyperplasia, Goblet Cell | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Transitional Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Upper Molar, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Upper Molar, Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Trachea | + | + | + | + | | | | | + | + | | | | | | | | | | | | | | | | | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cataract | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retina, Autolysis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | + | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | 0681 | 0713 | 0517 | 0293 | 0727 | 0779 | 0663 | 0767 | 0619 | 0449 | 0660 | 0667 | 0779 | 0543 | 0660 | 0665 | 0574 | 0772 | 0775 | 0777 | 0777 | 0777 | 0777 | males
(cont...) |
| | ANIMAL ID | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0029 | 0030 | 0031 | 0032 | 0033 | 0034 | 0035 | 0036 | 0037 | 0038 | 0039 | |
| | | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0029 | 0030 | 0031 | 0032 | 0033 | 0034 | 0035 | 0036 | 0037 | 0038 | 0039 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | | + | + | | + | + | + | + | | + | + | + | + | + | | | | | | + |
| Perforation | | | | X | | | | | | | | | | | | | | | | | | | | |
| Periesophageal Tissue, Foreign Body | | | | X | | | | | | | | | | | | | | | | | | | | |
| Periesophageal Tissue, Inflammation, Suppurative | | | | 4 | | | | | | | | | | | | | | | | | | | | |
| Periesophageal Tissue, Necrosis | | | | 4 | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | + | A | A | A | | A | + | | + | + | + | + | | + | + | + | A | + | | | | | | + |
| Intestine Small, Ileum | + | A | A | A | | A | + | | + | + | + | + | | + | + | + | A | + | | | | | | A |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | 1 | | | | 2 | 1 | | | | | | | 2 | | 3 | | | |
| Basophilic Focus | | | | | | | | | X | | | X | | | | | | | | X | | | | |
| Cholangiofibrosis | | | | | | | | | | | | | | | | | 4 | | | | | | | |
| Clear Cell Focus | | | | | | | | | | | | | X | | | X | | | X | | | | | |
| Deformity | | | | | X | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | 1 | 2 | | 1 | | 1 | 2 | | | | | | | 1 | | | 2 | 2 | 2 | | | 1 | 1 |
| Eosinophilic Focus | | | | | X | | | | | | | | | | | | | | | | | | | |
| Fatty Change | | | | | | | | | 2 | | 2 | 2 | | | | 3 | | | | | | | 4 | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Mononuclear Cell | 1 | | | | 2 | | 2 | 2 | 1 | 1 | 1 | 1 | | | 2 | 2 | | | 2 | | 1 | | 2 | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | 2 | 1 | | | | | | | | | | 3 | | | | 2 | | | | |
| Bile Duct, Hyperplasia | | 2 | | | 3 | | | | 4 | | | 1 | | | | 2 | | 1 | | | | | 2 | |
| Biliary Tract, Cyst | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0681 | 0713 | 0517 | 0293 | 0727 | 0779 | 0663 | 0767 | 0641 | 0664 | 0772 | 0772 | 0543 | 0661 | 0665 | 0578 | 0722 | 0725 | 0772 | 0777 | 0777 | 0777 | 0777 | 0777 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00117781 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00117781 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 00117781 | |
| | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 0 | 00117781 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cardiomyopathy | 3 | 2 | 2 | 1 | 3 | 1 | 2 | 4 | 2 | 1 | 2 | 2 | 1 | 3 | | 3 | | 2 | 2 | 3 | 3 | 2 | 3 | 2 | 3 |
| Metaplasia, Osseous | | | | | 2 | | | | | | | | | | | | | | | 2 | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thrombosis | | | | | X | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Degeneration, Cystic | 2 | | | | | 1 | 2 | | | | | | 1 | | | | | | | | | | | |
| Hyperplasia | 1 | 1 | | | | | 2 | 2 | | | | | | | | | | | | 2 | | | | |
| Vacuolization Cytoplasmic | | 1 | | | | | | | | 2 | | 1 | 1 | | | | | | | | 2 | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | 3 | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | 4 | | | | | 3 | | | | | | | | | | | | |
| Parathyroid Gland | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | 4 | | | | | | | 1 | 1 | | | | | | | | 2 | | | 1 | | 2 | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | 4 | | | 4 | | | | | 4 | 4 | 4 | 4 | | | | | 2 | | | | | |
| Pars Distalis, Cyst | | | | | | X | | X | | | | | | | | | X | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0681 | 0713 | 0517 | 0293 | 0727 | 0779 | 0663 | 0767 | 0641 | 0664 | 0773 | 0779 | 0543 | 0630 | 0661 | 0665 | 0578 | 0724 | 0725 | 0777 | 0777 | 0777 | 0777 | 0777 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0011 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0012 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 0013 | |
| | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 0 | 0014 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 0015 | |

Hyperplasia, Lymphoid 2
 Pigmentation 2 2 4 2 2 2 3 1 3 2 2 1 1 2
 Polyarteritis 2

Thymus + + A +
 Atrophy 4
 Hemorrhage 4

INTEGUMENTARY SYSTEM

Mammary Gland +
 Atypical Focus
 Galactocele
 Hyperplasia, Lobular 2
 Alveolus, Degeneration 4 4 4 4 4 4 4
 Alveolus, Dilatation 3 3 2 3 2 2 2 2 2 4 4 4 3 2
 Duct, Dilatation 3 3 3 2 3 2 2 2 4 2

Skin +
 Abscess 4
 Cyst, Squamous X
 Cyst Epithelial Inclusion X
 Fibrosis 4
 Inflammation, Suppurative 4 1
 Ulcer 1
 Epithelium, Hyperplasia 3
 Epithelium, Foot, Hyperplasia 4 4
 Foot, Edema 4
 Foot, Fibrosis 4 4
 Foot, Inflammation, Chronic Active 4 4

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | 0681 | 0713 | 0517 | 0293 | 0727 | 0779 | 0663 | 0767 | 0641 | 0664 | 0770 | 0779 | 0543 | 0661 | 0665 | 0578 | 0722 | 0775 | 0777 | 0777 | 0777 | 0777 | males
(cont...) |
| | ANIMAL ID | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0029 | 0030 | 0031 | 0032 | 0033 | 0034 | 0035 | 0036 | 0037 | 0038 | |

Foot, Necrosis
Foot, Ulcer

4
4

MUSCULOSKELETAL SYSTEM

Bone, Femur
Fibrous Osteodystrophy

+ +

NERVOUS SYSTEM

Brain, Brain Stem
Compression
Gliosis
Necrosis

+
4 3 1 2 3 3 4 2 3

Brain, Cerebellum
Compression

+ +

Brain, Cerebrum
Gliosis
Necrosis
Ventricle, Dilatation

+
2
2
1 1 2 1 2 3 1

Nerve Trigeminal
Axon, Degeneration

+

Peripheral Nerve, Sciatic
Axon, Degeneration

+
2

Peripheral Nerve, Tibial

+

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Experiment Number: 10034 - 04

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Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|
| | 0681 | 0713 | 0517 | 0293 | 0727 | 0779 | 0663 | 0767 | 0641 | 0664 | 0777 | 0779 | 0554 | 0663 | 0666 | 0578 | 0664 | 0574 | 0772 | 0775 | 0777 | 0777 | 0777 | 0777 | | | 0777 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0011 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0011 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 1111 | |
| | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 7788 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1212 | |

Respiratory Epithelium, Accumulation, Hyaline Droplet

Respiratory Epithelium, Hyperplasia, Goblet Cell

Transitional Epithelium, Accumulation, Hyaline Droplet

Trachea

SPECIAL SENSES SYSTEM

Eye

Cataract

Retinal Detachment

URINARY SYSTEM

Kidney

Infiltration Cellular, Polymorphonuclear

Mineralization

Nephropathy

Cortex, Cyst

Renal Tubule, Cyst

Transitional Epithelium, Hyperplasia

Urinary Bladder

Calculus Micro Observation Only

Lumen, Dilatation

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Date Report Requested: 08/16/2017

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| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | 0
4
6
2 | 0
6
5
0 | 0
7
2
7 | 0
6
1
4 | 0
7
2
8 | 0
7
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4 | 0
1
7
7 | 0
6
4
7 | 0
5
4
0 | 0
5
9
6 | 0
6
3
9 | 0
6
9
4 | 0
6
7
9 | 0
7
2
5 | 0
7
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3 | 0
5
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4 | 0
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4 | 0
4
5
3 | 0
4
9
0 | 0
7
7
6 | 0
7
2
6 | 0
7
2
6 | 0
6
5
3 | * TOTALS |
| | ANIMAL ID | 0
4
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1
2 | 0
4
5
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4
5
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2 | 0
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4
5
3
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4
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4
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2 | 0
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4
1 | 0
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ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|----|-----|-----|
| Esophagus | + | + | | + | | | + | + | + | + | + | + | + | | + | + | + | + | + | | + | 32 | | | | |
| Perforation | | | | | | | | | | | X | | | | | | | | | | | | | 2 | | |
| Periesophageal Tissue, Foreign Body | | | | | | | | | | | X | | | | | | | | | | | | | 2 | | |
| Periesophageal Tissue, Inflammation, Suppurative | | | | | | | | | | | 4 | | | | | | | | | | | | | 2 | 4.0 | |
| Periesophageal Tissue, Necrosis | | | | | | | | | | | 4 | | | | | | | | | | | | | 2 | 4.0 | |
| Intestine Large, Colon | + | + | | A | | | + | + | + | + | + | + | + | | | A | A | A | + | A | | + | 22 | | | |
| Intestine Small, Ileum | + | A | | A | | | A | + | + | A | + | + | + | | | A | A | A | + | A | | A | 17 | | | |
| Liver | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | | | |
| Angiectasis | | | | | 2 | | | | | | | | | | | | | | | | 1 | 2 | | 8 | 1.8 | |
| Basophilic Focus | | | | | X | | | | | | | | | | | | X | | | | | | | 5 | | |
| Cholangiofibrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Clear Cell Focus | | | X | | | X | | | | | | X | X | | | | | | | | | | | 7 | | |
| Deformity | | | | | | | | | X | | | | | | | | | | | | | | | 2 | | |
| Degeneration, Cystic | | | | 1 | | 1 | | | | 1 | 1 | | 2 | | 2 | 1 | | | | | 2 | | | 19 | 1.4 | |
| Eosinophilic Focus | | | | | | | | X | | | | | | | | | | | | | | | | 2 | | |
| Fatty Change | | | | | | | | | | 1 | 4 | | 4 | | | | | | | | | | | 8 | 2.8 | |
| Hepatodiaphragmatic Nodule | | | X | | | | | | | | | | | | | | X | | | | | | | 2 | | |
| Infiltration Cellular, Mononuclear Cell | 2 | | 1 | | 1 | 1 | | 1 | 1 | | 2 | 2 | 1 | 2 | 1 | 1 | 1 | | | | 2 | 1 | 2 | | 29 | 1.4 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Tension Lipidosis | 2 | | | | | | | | | | | | | | | | | | 2 | | | | | 2 | 2.0 | |
| Vacuolization Cytoplasmic | | | | | | | | | 2 | | | | | 1 | | | | | 3 | | 3 | | | 8 | 2.1 | |
| Bile Duct, Hyperplasia | | | 1 | 2 | | | 1 | | | | 4 | 2 | | 2 | | 3 | 1 | 1 | | | 3 | 2 | 2 | | 19 | 2.0 |
| Biliary Tract, Cyst | | | | | | | | | | | X | | | | | | | | | | | | | 1 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|----|----|----|
| | 04 | 06 | 07 | 06 | 07 | 07 | 01 | 06 | 05 | 05 | 06 | 06 | 06 | 07 | 07 | 05 | 06 | 04 | 04 | 00 | | 07 | 07 | 06 | 07 | 06 | 06 |
| ANIMAL ID | 04 | 04 | 04 | 04 | 04 | 04 | 04 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 |
| Blood Vessel Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Cardiomyopathy | 2 | 1 | 2 | 2 | 2 | 1 | | 1 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 2 | 2 | 3 | 1 | | 1 | 2 | 2 | | | 44 | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | 3 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Degeneration, Cystic | | | | | | | | | | | | | | | 1 | | | | 2 | | | | | | | | 6 |
| Hyperplasia | | | 2 | | | | | | | 1 | | | | | 1 | 1 | | | | | | | | | | | 9 |
| Vacuolization Cytoplasmic | | | | | | 1 | | | | 2 | | | 2 | 3 | 3 | | | | 2 | | | | | | 1 | | 12 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | 3 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 46 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | 46 |
| Hyperplasia | | | 1 | | | | | | | | | | 1 | 1 | 1 | | | | | | | | | | | 2 | 11 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Angiectasis | | 4 | | 4 | | | | | | | | | | | | 4 | | 4 | | | | | | | | | 11 |
| Pars Distalis, Cyst | | | | | | | | | | | X | | | | | | | | | | | | | | | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|
| | 0462 | 0650 | 0727 | 0614 | 0728 | 0724 | 0717 | 0667 | 0554 | 0550 | 0669 | 0663 | 0664 | 0772 | 0773 | 0554 | 0684 | 0443 | 0407 | 0072 | | 0726 | 0776 |
| ANIMAL ID | 0451 | 0452 | 0453 | 0454 | 0455 | 0456 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 | 0466 |

| | | | | | | | | |
|--|---|---|---|---|---|---|---|-----|
| Pars Distalis, Hyperplasia | 3 | 3 | 2 | 3 | 3 | 4 | 9 | 2.7 |
| Pars Distalis, Hypertrophy | | 1 | | | | | 2 | 2.0 |
| Pars Distalis, Vacuolization Cytoplasmic | | | | | | | 1 | 1.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Thyroid Gland | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | A | + | A | + | + | + | 40 | |
| Ultimobranchial Cyst | | | | | | | | | | | X | | | | X | | | | | | | | 4 | |
| C-cell, Hyperplasia | | | | | | | | | | | 2 | | 2 | 1 | | | | | | | | | 13 | 1.7 |
| Follicular Cell, Hyperplasia | | | | | | | 2 | | | | | 3 | | | | | | | | | | | 2 | 2.5 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Coagulating Gland | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | 46 | |
| Atrophy | | | | | | | | | | | 3 | | | | | | | | | | | 4 | 2 | 3.5 |
| Cyst, Mucinous | | | | | | | | | | | | X | | | | | | | | | | | 1 | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Exfoliated Germ Cell | | 1 | | | | | | | | | 2 | | 1 | | | | | | | | | 4 | 8 | 1.6 |
| Hypospermia | | | | | | 4 | | | | | 4 | | | | 4 | 4 | | | | | | 4 | 11 | 3.9 |
| Infiltration Cellular, Lymphocyte | | | 1 | | | 1 | | | | 1 | | | | | 1 | | | 1 | | | | | 12 | 1.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 |
| Fat Pad, Epididymal | | | | | | | + | | | | | | | | | | | | | | | | 2 | |
| Necrosis | | | | | | | 4 | | | | | | | | | | | | | | | | 2 | 4.0 |
| Preputial Gland | + | | | + | + | | | + | + | | | | + | + | | | + | | | + | | | 15 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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| | 0462 | 0650 | 0727 | 0614 | 0728 | 0774 | 0167 | 0654 | 0559 | 0563 | 0666 | 0666 | 0679 | 0772 | 0525 | 0053 | 0440 | 0076 | 0726 | 0776 | | 0653 |
| ANIMAL ID | 0451 | 0452 | 0453 | 0454 | 0455 | 0456 | 0457 | 0458 | 0459 | 0460 | 0461 | 0462 | 0463 | 0464 | 0465 | 0466 | 0467 | 0468 | 0469 | 0470 | 0471 | |
| Fibrosis | | | | | | | | | | | | | | | 4 | | | | | | 1 4.0 | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | 4 | | 4 4.0 | |
| Inflammation, Suppurative | | 4 | | | 4 | 2 | | | 4 | 4 | | | 4 | | | | 3 | | 3 | | 12 3.5 | |
| Duct, Dilatation | | 3 | | | 4 | 4 | | | 4 | 4 | | | 4 | | | 3 | | 4 | | 3 | 13 3.7 | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Cyst, Mucinous | | | | | | | | | | | | | | X | | X | | | | | 2 | |
| Fibrosis | | | | | | | | | 4 | 2 | | | | | | | | | | | 5 3.0 | |
| Infiltration Cellular, Lymphocyte | | 2 | 1 | | 1 | | | | 3 | | | 1 | 1 | | 1 | 2 | 1 | | | 1 | 26 1.3 | |
| Inflammation, Suppurative | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 3 | 3 | 1 | 3 | 2 | 3 | 3 | 2 | 2 | 2 | 2 | 46 2.0 | |
| Epithelium, Hyperplasia | | | | | | | | | 4 | | | | | | | | | | | | 1 4.0 | |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Atrophy | | | | | | | | | | | 3 | | | | | | | | | | 2 3.5 | |
| Fibrosis | | | | | | | | | | 1 | | | | | 1 | | | | | | 4 2.0 | |
| Infiltration Cellular, Lymphocyte | 1 | | | | | 1 | | | | | | 2 | | 1 | | | | 2 | 1 | | 14 1.4 | |
| Inflammation, Suppurative | | | | | | | | | | 1 | | | | | | | | | 1 | | 5 1.4 | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Epithelium, Hyperplasia | | 2 | | | | 2 | | | | | | 2 | | 1 | | 3 | | 2 | | | 12 2.3 | |
| Seminal Vesicle | + | A | + | A | + | + | A | + | + | + | + | + | + | + | A | A | + | + | + | + | 42 | |
| Atrophy | | | | | | | | | | | 3 | | | | | | | | | | 3 3.7 | |
| Inflammation, Chronic Active | | | | | | | | | | | | 2 | | | | | | | | | 1 2.0 | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | 3 | | | | | | 6 2.5 | |
| Lumen, Dilatation | | | 4 | | | | | | | | | | | | | | | 4 | | | 2 4.0 | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Polyarteritis | | | | | | | | | | | | | | | 2 | 2 | 4 | 2 | | | 1 3 | 11 2.4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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| | 0462 | 0650 | 0727 | 0614 | 0728 | 0774 | 0167 | 0554 | 0556 | 0669 | 0663 | 0664 | 0775 | 0773 | 0554 | 0668 | 0443 | 0440 | 0076 | 0726 | | 0776 |
| ANIMAL ID | 04512 | 04522 | 04531 | 04543 | 04552 | 04561 | 04572 | 04581 | 04592 | 04601 | 04612 | 04621 | 04632 | 04641 | 04652 | 04661 | 04672 | 04681 | 04692 | 04701 | 04712 | 04721 |

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------------|
| Hyperplasia, Lymphoid Pigmentation Polyarteritis | 4 | 3 | | 2 | 3 | | | | 1 | 3 | 3 | 3 | | 2 | 1 | | 3 | 2 | | | 2 | 2 | 1 2.0
28 2.3
1 2.0 |
| Thymus Atrophy Hemorrhage | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
43 4.0
1 4.0 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland Atypical Focus Galactocele Hyperplasia, Lobular Alveolus, Degeneration Alveolus, Dilatation Duct, Dilatation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
1 2.0
1
1 2.0
22 3.5
17 2.5
18 2.8 |
| Skin Abscess Cyst, Squamous Cyst Epithelial Inclusion Fibrosis Inflammation, Suppurative Ulcer Epithelium, Hyperplasia Epithelium, Foot, Hyperplasia Foot, Edema Foot, Fibrosis Foot, Inflammation, Chronic Active | | | | | | | | + | + | + | | | | | | + | + | | + | + | | | 16
1 4.0
1
3
1 4.0
2 2.5
1 1.0
1 3.0
5 4.0
2 3.5
5 4.0
5 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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| ANIMAL ID | 0451 | 0452 | 0455 | 0455 | 0455 | 0455 | 0455 | 0456 | 0456 | 0456 | 0456 | 0456 | 0456 | 0456 | 0456 | 0456 | 0456 | 0456 | 0456 | 0456 | 0456 | 0456 | 0456 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 8 | 8 | 8 | 9 | 9 | 0 | 0 |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|-----|
| Foot, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4 | 4 | 4 | 4.0 |
| Foot, Ulcer | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4 | 4 | 4 | 4.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Compression | | 3 | | 2 | | | | | | 3 | | 4 | | | | 3 | | | | | | | | 14 | 2.9 |
| Gliosis | 3 | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Necrosis | 3 | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Compression | | | | 2 | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Gliosis | 3 | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.5 |
| Necrosis | 3 | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.5 |
| Ventricle, Dilatation | | 2 | | | | | | | | 1 | | 1 | | | | | | | | | | | | 10 | 1.5 |
| Nerve Trigeminal | | | + | | | | | + | | + | | + | | + | | | | | | | | | 6 | | |
| Axon, Degeneration | | | 1 | | | | | 1 | | 1 | | | | 2 | | | | | | | | | | 4 | 1.3 |
| Peripheral Nerve, Sciatic | | | + | | | | | + | | + | | + | | + | | | | | | | | | 6 | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Peripheral Nerve, Tibial | | | + | | | | | + | | + | | + | | + | | | | | | | | | 6 | | |

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|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
4
6
2 | 0
6
5
0 | 0
7
2
7 | 0
6
1
4 | 0
7
2
8 | 0
7
2
4 | 0
1
7
7 | 0
6
4
7 | 0
5
4
0 | 0
5
9
6 | 0
6
3
9 | 0
6
9
4 | 0
6
7
9 | 0
7
2
5 | 0
7
2
3 | 0
5
5
4 | 0
6
8
4 | 0
4
5
3 | 0
4
9
0 | 0
7
7
6 | | 0
7
2
6 | 0
6
5
3 |
| ANIMAL ID | 0
4
5
1
2 | 0
4
5
1
2 | 0
4
5
2
2 | 0
4
5
3
1 | 0
4
5
3
2 | 0
4
5
5
1 | 0
4
5
5
2 | 0
6
6
4
1 | 0
6
6
4
2 | 0
6
6
5
1 | 0
6
6
5
6 | 0
6
6
6
1 | 0
6
6
7
2 | 0
6
6
7
1 | 0
6
6
7
2 | 0
8
4
7
1 | 0
8
4
7
2 | 0
8
4
8
1 | 0
8
4
8
2 | 0
8
4
9
1 | 0
8
4
9
2 | 0
8
5
0
1 | 0
8
5
0
2 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|---|---|--|--|---|---|--|---|---|---|---|---|---|--|--|--|--|--|--|--|--|---|-------|
| Spinal Cord, Cervical | | | + | | | | + | | | + | | + | | + | | | | | | | | | | 6 | |
| Spinal Cord, Lumbar
Axon, Degeneration | | | | + | | | | + | | | + | | + | | + | | | | | | | | | 6 | 5 2.0 |
| Spinal Cord, Thoracic | | | | + | | | | + | | | + | | + | | + | | | | | | | | | 6 | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--------|
| Lung | + | + | | + | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 39 | |
| Congestion | | | | | | | 4 | | | | | | | | | | | | | | | | | | 2 4.0 |
| Foreign Body | | | X | | | | | | | | | X | | | | | | X | | X | | | | | 5 |
| Infiltration Cellular, Histiocyte | | | | | 1 | | | 2 | | | | | | 2 | | | | 2 | | 2 | | | | | 10 1.8 |
| Inflammation, Granulomatous | | | 2 | | | | | | | | | | 4 | | | | | 2 | | | | | | | 4 2.8 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Bronchiole, Epithelium, Hyperplasia | | | | | | | | | | | | | 4 | | | | | | | | | | | | 1 4.0 |
| Goblet Cell, Metaplasia | | | | | | | | | | | | | 4 | | | | | | | | | | | | 1 4.0 |
| Pleura, Foreign Body | | | | | | | | | | | | X | | | | | | | | | | | | | 1 |
| Pleura, Inflammation, Suppurative | | | | | | | | | | | | 4 | | | | | | | | | | | | | 1 4.0 |
| Pleura, Necrosis | | | | | | | | | | | | 4 | | | | | | | | | | | | | 1 4.0 |
| Nose | + | + | | + | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 32 | |
| Autolysis | | | | | | | | | | | | | | | | | 4 | | | 4 | | | | | 4 4.0 |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | 3 | | 1 3.0 |
| Foreign Body | | | | | | | | | | | | | | | | | | X | X | | | | | | 4 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | 1 | 1 | | | | | | 4 1.5 |
| Inflammation, Chronic Active | | | | | | | | | | | 2 | | | | | | | | | | | | | | 1 2.0 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | 2 | | | | 2 | | | | | 3 | | | | | | 2 | 3 | | | | 2 | | 13 2.5 |
| Olfactory Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue
 X .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|------|
| | 0667 | 0669 | 0727 | 0777 | 0859 | 0946 | 0971 | 0994 | 0996 | 0997 | 0998 | 0999 | 1000 | 1001 | 1002 | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 | 1010 | 1011 | | 1012 |
| ANIMAL ID | 003331 | 003334 | 003335 | 003336 | 003337 | 003338 | 003339 | 003340 | 003341 | 003342 | 003343 | 003344 | 003345 | 003346 | 003347 | 003348 | 003349 | 003350 | 003351 | 003352 | 003353 | 003354 | 003355 | 003356 | 003357 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--------|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|--|---|---|---|--|--|---|---|
| Esophagus | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Ileum | + A + + + A + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Jejunum Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | +
4 | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | X | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Cholangiofibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | X | X | | | | | | | | | | | | | | | | | | | | | | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 1 | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Mononuclear Cell | 1 1 2 2 2 1 1 | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | 1 | | | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | | | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 2 | | | | | |
| Vacuolization Cytoplasmic | 2 | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3 | | | | | | | | | | | | | | | | 3 | 1 | | | | |
| Bile Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4 | 3 | | | | | | | | | | | | | | | | | | | 3 | |
| Biliary Tract, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3 | 2 | | | | | | | | | | | | | | | | | | | | 2 |
| Capsule, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|
| | 0667 | 0569 | 0727 | 0727 | 0589 | 0496 | 0771 | 0394 | 0663 | 0473 | 0776 | 0778 | 0778 | 0588 | 0577 | 0728 | 0688 | 0577 | 0728 | 0548 | 0728 | 0778 | 0428 | 0448 | | | 0448 | 0448 | 0448 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 3 | 3 | 5 | 5 | 6 | 6 | 6 | 6 |
| | 1 | 2 | 4 | 2 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

Hepatocyte, Necrosis

Mesentery
 Fat, Fibrosis
 Fat, Inflammation, Granulomatous
 Fat, Necrosis

+

4

Oral Mucosa

Pancreas
 Basophilic Focus
 Infiltration Cellular, Lymphocyte
 Lipomatosis
 Pigmentation
 Acinus, Degeneration

+
 X
 2 1 2 1 1 2 2 1 2 1 1 2 1 1 1 1 2 1 2 1 2 2 1
 4 3 3 4 3 3 4 4
 2 1 1 1 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1
 1 2 4 2 2 2 2 2 2 1 3 3 3 2 3 1 4 2 1 3 3 1

Stomach, Forestomach
 Cyst Epithelial Inclusion
 Epithelium, Hyperplasia

+
 3 2

Stomach, Glandular
 Cyst Epithelial Inclusion
 Mineralization
 Epithelium, Hyperplasia

+
 X
 4 4

CARDIOVASCULAR SYSTEM

Blood Vessel
 Mineralization
 Media, Proliferation

+
 3 4

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|
| | 0667 | 0669 | 0727 | 0779 | 0889 | 0906 | 0914 | 0933 | 0943 | 0973 | 0976 | 0977 | 0978 | 0988 | 0987 | 0988 | 0987 | 0988 | 0988 | 0988 | 0988 | 0988 | 0988 | 0988 | |
| ANIMAL ID | 003331 | 003341 | 003342 | 003351 | 003352 | 003361 | 003362 | 003371 | 003372 | 003381 | 003382 | 003391 | 003392 | 003401 | 003402 | 003411 | 003412 | 003421 | 003422 | 003431 | 003432 | 003441 | 003442 | 003451 | |
| Duct, Dilatation | 4 | | | | | | | 4 | | 4 | 4 | | | 3 | | 4 | | 4 | 4 | | | | | | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst, Mucinous | | | | | | | | | | | | | | | | | | | | | | | X | X | |
| Fibrosis | | | | | 2 | | | | | | | 3 | | | | | | 2 | | | | | | | |
| Infiltration Cellular, Lymphocyte | 1 | 1 | 1 | | 1 | | 1 | | 1 | | 1 | | | | | | 2 | 1 | 2 | 1 | 1 | | 2 | 1 | |
| Inflammation, Suppurative | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 1 | 2 | | | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 3 | 2 | 1 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | 2 | | | | | | | | | | | | | | | 2 | | | | | |
| Fibrosis | 1 | | | | | | | | | | | | | 2 | 1 | | 1 | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | 1 | | | | 1 | 1 | 1 | | 1 | | | 1 | 2 | 1 | | 1 | | | 1 | | | | | |
| Inflammation, Suppurative | | 2 | | | | | 1 | | | | | | | 1 | 1 | 2 | | | | | | | | | |
| Epithelium, Hyperplasia | 2 | 3 | | | | 3 | 1 | | | | | | | | | | | | | | | 2 | | | |
| Seminal Vesicle | + | A | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | 3 | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | 4 | | | | | 2 | | | 2 | | | | | | |
| Lumen, Dilatation | | | | | | | | | | | 4 | | | | | | 4 | | | | 2 | | | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | 4 | | 3 | | 2 | 2 | | | 4 | 1 | | | 4 | | | 2 | 4 | | |
| Seminiferous Tubule, Degeneration | | | 4 | 1 | 1 | | 4 | 1 | 2 | | 4 | 1 | | 4 | 2 | 1 | 4 | | 2 | 4 | | 1 | 4 | 2 | |

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

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Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | DAY ON TEST | 0
6
6
7 | 0
5
6
9 | 0
7
2
7 | 0
7
2
7 | 0
5
8
9 | 0
4
9
6 | 0
7
0
1 | 0
3
9
4 | 0
6
7
3 | 0
4
1
3 | 0
7
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6 | 0
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8 | 0
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8
8 | 0
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8 | 0
7
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8 | 0
7
2
8 | 0
4
2
9 | 0
7
2
5 | 0
4
8
9 | 0
6
8
5 | 0
4
1
9 | males
(cont...) |
| | ANIMAL ID | 0
0
3
3
1 | 0
0
3
3
2 | 0
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0
3
4
2 | 0
0
3
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3
6
1 | 0
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3
7
2 | 0
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3
7
2 | 0
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9
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9
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1
2 | 0
4
6
5
2 | 0
4
6
5
2 | 0
4
6
6
1 | 0
4
6
6
2 | |

Fibrous Osteodystrophy

4

Skeletal Muscle

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem
Compression | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | 3 | | | 3 | | | 2 | | | 2 | | | | | | 4 | 1 | | | 2 | | | | | |
| Brain, Cerebellum
Gliosis
Hemorrhage
Necrosis
Polyarteritis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Brain, Cerebrum
Gliosis
Necrosis
Polyarteritis
Ventricle, Dilatation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| | | 1 | | | | | 1 | | | 1 | | | | | | | 1 | | | | | | | | | 1 |
| Nerve Trigeminal
Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | | | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|---|-------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|--------------------|---------|
| ANIMAL ID | 0667331 | 0667332 | 0667333 | 0667334 | 0667335 | 0667336 | 0667337 | 0667338 | 0667339 | 0667340 | 0667341 | 0667342 | 0667343 | 0667344 | 0667345 | 0667346 | 0667347 | 0667348 | 0667349 | 0667350 | 0667351 | 0667352 | 0667353 | 0667354 | | 0667355 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | |
| | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |

Accumulation, Hyaline Droplet
 Casts Protein
 Infarct
 Infiltration Cellular, Polymorphonuclear
 Mineralization
 Nephropathy
 Polyarteritis
 Thrombosis
 Cortex, Cyst
 Pelvis, Dilatation
 Renal Tubule, Cyst
 Renal Tubule, Hyperplasia, Atypical
 Transitional Epithelium, Hyperplasia

Urinary Bladder
 Lumen, Dilatation

2 2

 3
 2 4 3 2 4 4 1 4 1 4 4 3 1 4 4 1 1 4 1 2 4 3 2 4
 3
 X X X X X X X X X X X X X X X
 X X X X X X X X X X X X X X X
 1 1 2 2 1 3 3
 + +
 3 4

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0560 | 0339 | 0580 | 0510 | 0728 | 0776 | 0644 | 0575 | 0777 | 0522 | 0485 | 0666 | 0677 | 0621 | 0288 | 0572 | 0728 | 0533 | 0757 | | |
| ANIMAL ID | 04672 | 04681 | 04688 | 04699 | 04692 | 04661 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|---|-----|
| Esophagus | + | + | + | + | | | + | + | + | | | + | + | + | + | | | + | + | + | | | + | 31 | | | |
| Intestine Large, Colon | + | A | + | + | | | + | + | + | | | + | + | + | + | | | + | + | + | | | + | + | 31 | | |
| Intestine Small, Ileum | + | A | + | + | | | A | + | + | | | + | + | + | + | | | + | + | + | | | + | 27 | | | |
| Intestine Small, Jejunum Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 4.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | | |
| Angiectasis | | | 2 | 2 | | | | | | | | | | | | | | | | | | | | 4 | 1.8 | | |
| Basophilic Focus | | | | | | | | X | X | | | | | | | X | | | | | | | | 6 | | | |
| Cholangiofibrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | |
| Clear Cell Focus | | | | | | X | | | X | X | | | | | | | | | | X | X | | | 11 | | | |
| Congestion | | | | | | | 4 | | | | | | | | | | | | | | | | | 1 | 4.0 | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Degeneration, Cystic | 1 | | | | 2 | 2 | | | | 1 | | | | 1 | 2 | 1 | | | | | 1 | 1 | | 19 | 1.4 | | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Fatty Change | | | | | | | | | | | | | | 2 | | 3 | | | | | | | | 5 | 2.2 | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | 2 | | | 2 | 1.5 | | |
| Hepatodiaphragmatic Nodule | | | X | | | | | | | X | | | | | | | | | | | | | | 4 | | | |
| Infiltration Cellular, Mononuclear Cell | | | 1 | 1 | 2 | 2 | | 2 | 1 | 1 | 1 | | | 2 | 1 | 2 | | | 2 | 1 | 2 | 1 | 2 | 37 | 1.4 | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | 2 | | | 3 | 2.7 | | |
| Vacuolization Cytoplasmic | | | 2 | | | | 3 | | 1 | 2 | | | | | | | | | | 2 | | | | 11 | 2.1 | | |
| Bile Duct, Hyperplasia | 1 | | 1 | | 3 | | | | | | 1 | | | 1 | | | | | 2 | | 2 | 1 | 2 | 17 | 1.8 | | |
| Biliary Tract, Fibrosis | | | 1 | 1 | 1 | 1 | | 1 | 1 | | | | | 2 | | | | | | 1 | | 1 | | 19 | 1.4 | | |
| Capsule, Fibrosis | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | 1.0 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
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M .. Missing tissue
A .. Autolysis precludes evaluation
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|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|------|---------------------|---------------------|-----------|--------|---|---|---|---|---|---|---|---|---|---|---|---|----|----|---|---|----|
| | 0560 | 0339 | 0580 | 0551 | 0728 | 0776 | 0644 | 0057 | 0077 | 0077 | 0054 | 0048 | 0066 | 0066 | 0077 | 0066 | 0022 | 0055 | 0077 | 0072 | | 0053 | 0075 | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 04672 | 04681 | 04682 | 04689 | 04691 | 04692 | 04698 | 04699 | 04701 | 04702 | 04708 | 04709 | 04711 | 04712 | 04718 | 04719 | 04721 | 04722 | 04723 | 04728 | 04731 | 04732 | | | | | | | | | | | | | | | | | | | | | | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | + | | | | + | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | |
| Fat, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 | | | | | | | | | | | | | | | | | | | |
| Fat, Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | 4 | 4 4.0 | | | | | | | | | | | | | | | | | | | | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | + | 1 | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 1 2 1 3 2 3 2 1 1 | 1 1 2 1 1 1 2 3 3 2 | 43 1.6 | | | | | | | | | | | | | | | | | | |
| Lipomatosis | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 12 3.6 | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 1 1 1 1 | 2 1 1 1 1 | 26 1.2 | | | | | | | | | | | | | | | | | |
| Acinus, Degeneration | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 2 3 2 3 4 3 2 2 2 | 2 1 2 1 1 1 3 3 4 3 | 43 2.3 | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | | + | + | + | | | | | | | | | | | 33 | | | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 3 3.0 | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | | + | + | + | | | | | | | | | | 33 | | | | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 3.3 | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 2 3.5 | | | | | | | | | | | | | | | | |
| Media, Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
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M .. Missing tissue
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|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0560 | 0339 | 0580 | 0551 | 0728 | 0776 | 0644 | 0577 | 0773 | 0575 | 0748 | 0665 | 0667 | 0721 | 0668 | 0252 | 0572 | 0728 | 0753 | 0757 | |
| ANIMAL ID | 04672 | 04681 | 04682 | 04691 | 04692 | 04661 | 04662 | 04663 | 04664 | 04665 | 04666 | 04667 | 04668 | 04669 | 04660 | 04661 | 04662 | 04663 | 04664 | 04665 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cardiomyopathy | 2 | | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 2 | 3 | | 1 | 2 | 1 | 3 | 4 | 1 | 1 | 2 | |
| Mineralization | | | | | | | | | 4 | | | | | | | | | | | | |
| Thrombosis | | | | | | | X | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Adrenal Cortical Nodule | | | | X | | | | | | | | | | | | | | X | | |
| Angiectasis | | | | 2 | | 2 | | | | | | | | | 4 | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | 4 | | | | | |
| Hyperplasia | | | | | 2 | 2 | 1 | | 3 | | | | | | | | | | 1 | |
| Hypertrophy | | | 4 | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | 2 | | 2 | 2 | 2 | 1 | 1 | 3 | | | 2 | | 1 | 1 | | | 2 | 2 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | 1 | | 1 | 1 | | | | | | 4 | | | 3 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + |
| Hyperplasia | 2 | | | 2 | | 2 | 3 | 2 | 3 | 3 | 2 | 2 | | | | 4 | | | 2 | 1 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | 4 | | | | | | | | | 4 | | | | | | 4 | | | 4 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | 4 |
| Pars Distalis, Cyst | | | | X | | | | | | | X | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | 2 | 2 | 4 | | 1 | | | 4 | | | 3 | | 2 | | | 2 | 3 |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | 1 | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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| | 0560 | 0339 | 0580 | 0581 | 0728 | 0776 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | | 0777 | | |
| ANIMAL ID | 04672 | 04681 | 04682 | 04689 | 04691 | 04692 | 04697 | 04698 | 04699 | 04701 | 04702 | 04706 | 04707 | 04708 | 04709 | 04711 | 04712 | 04713 | 04714 | 04715 | 04716 | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | | |
| Ultimobranchial Cyst | | | | | | | X | | | | | | | | | | | | X | X | X | 6 | | |
| C-cell, Hyperplasia | | | | | 4 | 1 | | | | | 2 | | 3 | | | | | 1 | | 2 | 1 | 1 | 15 | 1.7 |
| Follicular Cell, Hyperplasia | 3 | | 3 | | | 2 | | | | 3 | | | 2 | | | 3 | 2 | | | | | | 9 | 2.8 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Coagulating Gland
Lumen, Dilatation | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | 1 | 3.0 |
| Ductus Deferens
Granuloma Sperm | | + | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 4.0 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 10 | 1.9 |
| Exfoliated Germ Cell | | | | | | | 2 | | 2 | | 2 | 2 | | 2 | | | | 2 | | | | | 1 | 1 | 4.0 |
| Hypoplasia | | | | | | | | | | | | | | | | | | | | | | | 9 | 9 | 3.8 |
| Hypospermia | | | | | 4 | 4 | | | | | | | | | | | | | | 2 | | | 13 | 13 | 1.2 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | 2 | 1 | | | 1 | | 1 | | | | | | | 1 | 1 | 2.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | |
| Spermatocele | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | |
| Preputial Gland | | | | | | | | + | | | | | | | | | + | + | + | | | + | 15 | 3 | 3.0 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 4.0 |
| Fibrosis | | | | | | | 4 | | | | | | | | | | | | | | | | 4 | 4 | 3.8 |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | 3 | | | | 3 | 3 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | 3 | 3 | | | 10 | 10 | 3.2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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| | 0560 | 0339 | 0580 | 0510 | 0728 | 0776 | 0649 | 0457 | 0573 | 0775 | 0722 | 0484 | 0659 | 0660 | 0770 | 0688 | 0218 | 0562 | 0778 | 0533 | | 0757 |
| ANIMAL ID | 04672 | 0481 | 0448 | 0441 | 0446 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 | 0888 | 0888 | 0888 | 0888 | 0888 | 0888 | 0888 | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | 3 | 4 | | | 10 3.8 | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Cyst, Mucinous | | | | | | | | | | | | | | | | | | | | | | 2 |
| Fibrosis | 3 | | | | 2 | 2 | 3 | | | | 1 | | | 2 | 2 | 1 | 1 | | | | | 12 2.0 |
| Infiltration Cellular, Lymphocyte | 3 | | 1 | 1 | 1 | | 2 | | | 1 | 1 | | | 1 | 1 | 2 | 1 | | 1 | | | 27 1.3 |
| Inflammation, Suppurative | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 1 | 1 | 2 | 2 | 3 | 1 | 3 | 2 | 2 | 2 | 2 | 3 | 47 2.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Mineralization | | | | | | | | | | | | | | | | | 2 | | | | | 1 2.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Fibrosis | | | | | | | | | | 3 | | | | | | | | | 2 | | | 6 1.7 |
| Infiltration Cellular, Lymphocyte | | | | 1 | | | | 1 | | | | | | 1 | | | | | 1 | 1 | | 15 1.1 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | 5 1.4 |
| Epithelium, Hyperplasia | | | | | | 3 | | | 2 | | | | | 2 | 3 | 1 | | | | | | 10 2.2 |
| Seminal Vesicle | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Atrophy | | | 2 | | | | | | 3 | | | | | | | | | | | | | 3 2.7 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Epithelium, Hyperplasia | | | | | | | | | | 2 | 2 | | | | | | | | | | | 5 2.4 |
| Lumen, Dilatation | | 2 | | | | | | | | | | | | | | | | | | | | 4 3.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Edema | | | | | | 4 | | | | | | | | | | | | | | | | 1 4.0 |
| Polyarteritis | | | 1 | | 1 | 2 | 2 | | 2 | 2 | | | | | | | | | | | 2 | 16 2.4 |
| Seminiferous Tubule, Degeneration | | | | | 4 | 4 | 2 | | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 2 | 1 | 2 | | 3 | 1 | 33 2.3 |

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|--------|
| | 0560 | 0339 | 0580 | 0551 | 0728 | 0776 | 0647 | 0457 | 0077 | 0053 | 0075 | 0072 | 0048 | 0066 | 0066 | 0077 | 0061 | 0028 | 0057 | 0072 | | 0053 |
| ANIMAL ID | 04672 | 04681 | 04682 | 04691 | 04692 | 04661 | 04662 | 04666 | 04667 | 04668 | 04669 | 04660 | 04661 | 04662 | 04663 | 04664 | 04665 | 04666 | 04667 | 04668 | 04669 | 04660 |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hypocellularity | | | 3 | | | | | | | | | | | | | | | | | | | 4 |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 48 |
| Lymph Node | | + | | + | | | | | | | | | | + | | + | | | | + | | + |
| Cervical, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 13 |
| Cervical, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | 4 | | | | | 4 | 1 3.0 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | 3 | | | | 3 4.0 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | 3 | | 4 | | | 3 | 4 3.5 |
| Pancreatic, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pancreatic, Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Renal, Degeneration, Cystic | | | | | 4 | | | | | | | | | | | | | | | | 3 | 6 3.7 |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Renal, Hyperplasia, Lymphoid | | | | | | 3 | | | | | | | | | | | | | | | | 1 3.0 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | 4 | | | | | | | | | | | | | | | 3 | 2 3.5 |
| Lymph Node, Mandibular | | | | | | | | + | | | | | | + | | | | | | | + | 9 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | 2 | 3 2.0 |
| Hyperplasia, Lymphoid | | | | | | | 4 | | | | | | | | | | | | | | 3 | 5 3.2 |
| Infiltration Cellular, Plasma Cell | | | | | | | 4 | | | | | | | | | | | | | | 4 | 7 4.0 |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | + | | | | 1 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | 4 | | | | 1 4.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | 2 | | | | 1 2.0 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | 13 2.2 |
| Pigmentation | 2 | | 1 | | 2 | 2 | | 2 | 3 | 3 | | | | 2 | | 2 | 1 | | | 2 | 2 | 4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|---|---|----|
| | 0560 | 0339 | 0580 | 0551 | 0728 | 0776 | 0644 | 0557 | 0773 | 0725 | 0489 | 0646 | 0667 | 0721 | 0685 | 0228 | 0572 | 0778 | 0553 | 0727 | | | | |
| ANIMAL ID | 046672 | 044668 | 044668 | 044669 | 044670 | 066661 | 066662 | 066663 | 066664 | 066665 | 066666 | 066667 | 066668 | 066669 | 066670 | 066671 | 066672 | 066673 | 066674 | 066675 | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | 46 |
| Atrophy | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 44 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 1 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Galactocele | | | | | | | | | | | | | X | | | | | | | | | | 1 |
| Hyperplasia, Lobular | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Alveolus, Degeneration | 4 | | | | 2 | 4 | 3 | 3 | 2 | | 2 | 4 | | 4 | | 4 | | | 2 | | | 2 | 25 |
| Alveolus, Dilatation | | | | | | | | | 2 | 3 | | | | | | | | 4 | | | 3 | | 11 |
| Duct, Dilatation | | | 2 | | | | 2 | | 2 | | | | | | | | 4 | | | | 3 | | 15 |
| Skin | | | + | + | + | | + | + | | | | | | + | + | | | | + | + | | | 14 |
| Cyst Epithelial Inclusion | | | | | | | | | X | | | | | X | | | | | | | | | 3 |
| Epithelium, Foot, Hyperplasia | | | 4 | 4 | | | | | | | | | | | | | | | 4 | | | | 5 |
| Foot, Edema | | | 4 | | | | | | | | | | | | | | | | | | | | 1 |
| Foot, Fibrosis | | | 4 | 4 | | | | | | | | | | | | | | | 4 | | | | 4 |
| Foot, Inflammation, Chronic Active | | | 4 | 4 | | | | | | | | | | | | | | | 4 | | | | 5 |
| Foot, Necrosis | | | 4 | 4 | | | | | | | | | | | | | | | 4 | | | | 4 |
| Foot, Ulcer | | | 4 | 4 | | | | | | | | | | | | | | | 4 | | | | 4 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Joint, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Joint, Hyperostosis | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Joint, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
|---|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-----------------|
| ANIMAL ID | | | 5 | 3 | 5 | 5 | 7 | 7 | 6 | 4 | 5 | 7 | 7 | 5 | 4 | 6 | 6 | 7 | 6 | 2 | 5 | 7 | 7 | 5 | 7 | | |
| | | | 6 | 3 | 8 | 1 | 2 | 2 | 7 | 7 | 7 | 2 | 2 | 4 | 8 | 5 | 5 | 2 | 1 | 8 | 6 | 2 | 2 | 3 | 2 | | |
| | | | 0 | 9 | 0 | 0 | 8 | 6 | 9 | 7 | 3 | 5 | 5 | 0 | 9 | 9 | 0 | 7 | 8 | 5 | 2 | 8 | 8 | 3 | 7 | | |
| | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | | | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | | |
| | | | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 6 | 3 | 3 | 4 | 4 | | |
| | | | 7 | 8 | 8 | 9 | 9 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | | |
| | | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

Fibrous Osteodystrophy 1 4.0

Skeletal Muscle 3

NERVOUS SYSTEM

Brain, Brain Stem Compression 48

2 2 3 3 3

12 2.5

Brain, Cerebellum Gliosis 48

+ +

Brain, Cerebellum Hemorrhage 1 2.0

3

Brain, Cerebellum Necrosis 1 3.0

Brain, Cerebellum Polyarteritis 1 2.0

1 1.0

Brain, Cerebrum Gliosis 48

+ +

Brain, Cerebrum Necrosis 1 2.0

Brain, Cerebrum Polyarteritis 1 1.0

Brain, Cerebrum Ventricle, Dilatation 8 1.3

1 3 1 1

Nerve Trigeminal Axon, Degeneration 5

+ + 1

2 1.0

Peripheral Nerve, Sciatic 5

+ + +

Peripheral Nerve, Tibial 5

+ + +

Spinal Cord, Cervical 5

+ + +

Spinal Cord, Lumbar 5

+ + +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|------------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|
| DAY ON TEST | | 5 | 3 | 5 | 5 | 7 | 7 | 6 | 4 | 5 | 7 | 7 | 5 | 4 | 6 | 6 | 7 | 6 | 2 | 5 | 7 | 7 | 5 | 7 |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 6 | 3 | 8 | 1 | 2 | 2 | 7 | 7 | 7 | 2 | 2 | 4 | 8 | 5 | 5 | 2 | 1 | 8 | 6 | 2 | 8 | 8 | 8 |
| F1 25.0 BPA M | | 0 | 9 | 0 | 0 | 8 | 6 | 9 | 7 | 3 | 5 | 5 | 0 | 9 | 9 | 0 | 7 | 8 | 5 | 2 | 8 | 8 | 3 | 7 |
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | | 7 | 8 | 8 | 9 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

Axon, Degeneration 1 1 2 1 5 1.4

Spinal Cord, Thoracic + + + + 5

RESPIRATORY SYSTEM

Lung + + + + + + + + + + + + + + + + + 34
 Foreign Body X 2
 Infiltration Cellular, Histiocyte 4 3 2 3 1 4 1 2 14 2.3
 Inflammation, Granulomatous 3 3 2.0
 Alveolar Epithelium, Hyperplasia 3 2 2.0

Nose + + + + + + + + + + + + + + + 31
 Fibrous Osteodystrophy 1 3.0
 Olfactory Epithelium, Accumulation, Hyaline Droplet 2 4 4 2 9 2.7
 Respiratory Epithelium, Accumulation, Hyaline Droplet 2 2 3 2.3
 Respiratory Epithelium, Hyperplasia, Goblet Cell 2 2.5

Trachea + A + + + + + + + + + + + + + + + 30

SPECIAL SENSES SYSTEM

Zymbal's Gland 3
 Duct, Dilatation 1 4.0

URINARY SYSTEM

Kidney + 48

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|------|------|-----|
| | 0560 | 0339 | 0580 | 0551 | 0728 | 0776 | 0647 | 0457 | 0077 | 0057 | 0077 | 0042 | 0054 | 0066 | 0066 | 0077 | 0062 | 0052 | 0072 | 0072 | | 0053 | 0072 | | |
| ANIMAL ID | 04672 | 04681 | 04682 | 04691 | 04692 | 04661 | 04662 | 04666 | 04667 | 04668 | 04669 | 04660 | 04661 | 04662 | 04663 | 04664 | 04665 | 04666 | 04667 | 04668 | 04669 | 04660 | | | |
| Accumulation, Hyaline Droplet | | | | | | | | | | | | | | 4 | | | | | | | | | 1 | 4.0 | |
| Casts Protein | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Infarct | | | X | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Infiltration Cellular, Polymorphonuclear | | | | | 1 | 2 | | | | | | | | | | | | | | | | | 5 | 1.8 | |
| Mineralization | | | | | | | | | | | | 4 | | | | | | | | | | | 2 | 3.0 | |
| Nephropathy | 3 | | 2 | 2 | 4 | 4 | 4 | 3 | 4 | 2 | 4 | 1 | | 2 | 1 | 1 | 4 | | | 4 | 3 | 1 | 4 | 43 | 2.8 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Thrombosis | | | | | | | | | | | | | | | | | X | | | | | | 1 | 1.0 | |
| Cortex, Cyst | | | | X | | | | | X | | | | | | | | | X | | | X | X | 13 | 13.0 | |
| Pelvis, Dilatation | | | | | | | | | | | | | | | | | | | | | | | 4 | 4.0 | |
| Renal Tubule, Cyst | | | | X | X | X | | | X | | X | | X | X | | | | | | | X | | 15 | 15.0 | |
| Renal Tubule, Hyperplasia, Atypical | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Transitional Epithelium, Hyperplasia | | | | | 2 | 3 | 1 | | | | 1 | | | | | | 2 | | | 2 | | 2 | 12 | 1.7 | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | 3 | 3.0 | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | 4 | 3.7 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | 0
3
1
2 | 0
7
1
3 | 0
4
6
8 | 0
5
7
5 | 0
6
0
2 | 0
7
0
0 | 0
6
7
4 | 0
6
8
7 | 0
7
2
6 | 0
7
2
7 | 0
5
2
8 | 0
7
2
8 | 0
5
9
5 | 0
6
9
7 | 0
6
9
8 | 0
5
7
4 | 0
6
0
1 | 0
7
2
7 | 0
7
2
8 | 0
6
3
0 | 0
6
2
3 | 0
7
2
8 | males
(cont...) |
| | ANIMAL ID | 0
0
4
9
1 | 0
0
4
9
2 | 0
0
5
0
1 | 0
0
5
0
1 | 0
0
5
1
2 | 0
0
5
2
1 | 0
0
5
3
2 | 0
0
5
3
1 | 0
2
6
5
1 | 0
2
6
5
2 | 0
2
6
6
1 | 0
2
6
7
2 | 0
2
6
7
1 | 0
2
6
7
2 | 0
2
6
7
1 | 0
2
6
8
2 | 0
2
6
8
1 | 0
2
6
9
2 | 0
2
6
9
1 | 0
4
8
1
2 | 0
4
8
1
2 | 0
4
8
2
2 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | | + | | + | + | + | + | + | + | | | + | + | | | |
| Perforation | | | | | | | | X | | | | | | | | | | | | | | | | |
| Periesophageal Tissue, Foreign Body | | | | | | | | X | | | | | | | | | | | | | | | | |
| Periesophageal Tissue, Inflammation, Suppurative | | | | | | | | 4 | | | | | | | | | | | | | | | | |
| Periesophageal Tissue, Necrosis | | | | | | | | 4 | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | + | + | A | + | + | + | + | + | | + | | + | + | + | + | + | + | | | A | + | | | |
| Intestine Small, Ileum | + | A | A | A | + | + | A | + | | + | | + | + | + | + | + | A | | | A | + | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Angiectasis | | | | | | | | | | | | | | | 1 | | | | | | 2 | | | |
| Basophilic Focus | | | | | | X | | X | | | | | | | | X | X | | | X | | X | | |
| Clear Cell Focus | | | | X | | X | | | | | X | | | | | X | | X | X | X | X | X | | |
| Cyst | | | | | | | | | | | | | X | | | | | | | | | | | |
| Deformity | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | 1 | | 2 | | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 2 | | 1 | | 1 | 1 | | 2 | |
| Fatty Change | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | X | | | | | | | | | | |
| Infiltration Cellular, Mononuclear Cell | | 1 | 1 | 1 | 1 | 1 | | 2 | 1 | 2 | 2 | 1 | | 1 | 1 | 1 | | 1 | 1 | 1 | 1 | 2 | 2 | 1 |
| Inflammation, Chronic Active | | | | | | | | | | | 3 | | | | | | | | | | | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | 2 | | | | 3 | 3 | 2 | | | 1 | | 2 | | 1 | | 1 | | | 1 | | |
| Bile Duct, Hyperplasia | | 1 | | 1 | 2 | | | 2 | 1 | | | 1 | | 2 | | | | 2 | | | | 1 | 2 | 3 |
| Biliary Tract, Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Biliary Tract, Fibrosis | | | | 2 | | 1 | 2 | | | | 1 | | | | | 1 | 1 | | | 1 | | 1 | 2 | 2 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|--------------------|-----------------------|------------------|
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2 | 0
7
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3 | 0
4
6
8 | 0
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7
2
7 | 0
7
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8 | 0
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0 | | | 0
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2
3 | 0
7
2
8 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
0
4
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|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Polyarteritis | | | | | | 3 | | | | | | | 2 | | 3 | 2 | 4 | | | 3 | 1 | | 3 | |
| Seminiferous Tubule, Degeneration | | 1 | | 2 | 1 | 1 | 1 | 1 | 4 | 3 | 4 | | 4 | | 3 | 4 | 3 | 1 | 1 | 4 | 2 | 1 | 2 | 3 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + |
| Myeloid Cell, Hyperplasia | | | | | | | | | | 3 | | | | | | 3 | | | | | | | 3 | |
| Lymph Node | | + | | | | + | | | | | | + | | + | | | | | | + | | | + | |
| Inguinal, Hyperplasia, Lymphoid | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Inguinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | 4 | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Popliteal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Renal, Degeneration, Cystic | | | | | | | 3 | | | | | | | | 4 | | | | | | | 4 | | |
| Renal, Hemorrhage | | | | | | | | | | | | | | | 3 | | | | | | | | | |
| Renal, Hyperplasia, Lymphoid | | | | | | | 2 | | | | | | | | | | | | | | | 2 | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | | | | | + | | | + | | | | | | + | | | | | | | | | |
| Congestion | | | | | | 3 | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Hyperplasia, Lymphoid | | | | | | | | | | | 3 | | | | | | | | | | | | | 4 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | 4 | | | | | | | | | | | | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------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| | 0312 | 0313 | 0314 | 0315 | 0316 | 0317 | 0318 | 0319 | 0320 | 0321 | 0322 | 0323 | 0324 | 0325 | 0326 | 0327 | 0328 | 0329 | 0330 | 0331 | | | 0332 | 0333 | 0334 | 0335 | 0336 | 0337 | 0338 | 0339 | 0340 | 0341 | 0342 | 0343 | 0344 | 0345 | 0346 | 0347 | 0348 | 0349 | 0350 | 0351 | 0352 | 0353 | 0354 | 0355 | 0356 | 0357 | 0358 | 0359 | 0360 | 0361 | 0362 | 0363 | 0364 | 0365 | 0366 | 0367 | 0368 | 0369 | 0370 | 0371 | 0372 | 0373 | 0374 | 0375 | 0376 | 0377 | 0378 | 0379 | 0380 | 0381 | 0382 | 0383 | 0384 | 0385 | 0386 | 0387 | 0388 | 0389 | 0390 | 0391 | 0392 | 0393 | 0394 | 0395 | 0396 | 0397 | 0398 | 0399 | 0400 | 0401 | 0402 | 0403 | 0404 | 0405 | 0406 | 0407 | 0408 | 0409 | 0410 | 0411 | 0412 | 0413 | 0414 | 0415 | 0416 | 0417 | 0418 | 0419 | 0420 | 0421 | 0422 | 0423 | 0424 | 0425 | 0426 | 0427 | 0428 | 0429 | 0430 | 0431 | 0432 | 0433 | 0434 | 0435 | 0436 | 0437 | 0438 | 0439 | 0440 | 0441 | 0442 | 0443 | 0444 | 0445 | 0446 | 0447 | 0448 | 0449 | 0450 | 0451 | 0452 | 0453 | 0454 | 0455 | 0456 | 0457 | 0458 | 0459 | 0460 | 0461 | 0462 | 0463 | 0464 | 0465 | 0466 | 0467 | 0468 | 0469 | 0470 | 0471 | 0472 | 0473 | 0474 | 0475 | 0476 | 0477 | 0478 | 0479 | 0480 | 0481 | 0482 | 0483 | 0484 | 0485 | 0486 | 0487 | 0488 | 0489 | 0490 | 0491 | 0492 | 0493 | 0494 | 0495 | 0496 | 0497 | 0498 | 0499 | 0500 | 0501 | 0502 | 0503 | 0504 | 0505 | 0506 | 0507 | 0508 | 0509 | 0510 | 0511 | 0512 | 0513 | 0514 | 0515 | 0516 | 0517 | 0518 | 0519 | 0520 | 0521 | 0522 | 0523 | 0524 | 0525 | 0526 | 0527 | 0528 | 0529 | 0530 | 0531 | 0532 | 0533 | 0534 | 0535 | 0536 | 0537 | 0538 | 0539 | 0540 | 0541 | 0542 | 0543 | 0544 | 0545 | 0546 | 0547 | 0548 | 0549 | 0550 | 0551 | 0552 | 0553 | 0554 | 0555 | 0556 | 0557 | 0558 | 0559 | 0560 | 0561 | 0562 | 0563 | 0564 | 0565 | 0566 | 0567 | 0568 | 0569 | 0570 | 0571 | 0572 | 0573 | 0574 | 0575 | 0576 | 0577 | 0578 | 0579 | 0580 | 0581 | 0582 | 0583 | 0584 | 0585 | 0586 | 0587 | 0588 | 0589 | 0590 | 0591 | 0592 | 0593 | 0594 | 0595 | 0596 | 0597 | 0598 | 0599 | 0600 | 0601 | 0602 | 0603 | 0604 | 0605 | 0606 | 0607 | 0608 | 0609 | 0610 | 0611 | 0612 | 0613 | 0614 | 0615 | 0616 | 0617 | 0618 | 0619 | 0620 | 0621 | 0622 | 0623 | 0624 | 0625 | 0626 | 0627 | 0628 | 0629 | 0630 | 0631 | 0632 | 0633 | 0634 | 0635 | 0636 | 0637 | 0638 | 0639 | 0640 | 0641 | 0642 | 0643 | 0644 | 0645 | 0646 | 0647 | 0648 | 0649 | 0650 | 0651 | 0652 | 0653 | 0654 | 0655 | 0656 | 0657 | 0658 | 0659 | 0660 | 0661 | 0662 | 0663 | 0664 | 0665 | 0666 | 0667 | 0668 | 0669 | 0670 | 0671 | 0672 | 0673 | 0674 | 0675 | 0676 | 0677 | 0678 | 0679 | 0680 | 0681 | 0682 | 0683 | 0684 | 0685 | 0686 | 0687 | 0688 | 0689 | 0690 | 0691 | 0692 | 0693 | 0694 | 0695 | 0696 | 0697 | 0698 | 0699 | 0700 | 0701 | 0702 | 0703 | 0704 | 0705 | 0706 | 0707 | 0708 | 0709 | 0710 | 0711 | 0712 | 0713 | 0714 | 0715 | 0716 | 0717 | 0718 | 0719 | 0720 | 0721 | 0722 | 0723 | 0724 | 0725 | 0726 | 0727 | 0728 | 0729 | 0730 | 0731 | 0732 | 0733 | 0734 | 0735 | 0736 | 0737 | 0738 | 0739 | 0740 | 0741 | 0742 | 0743 | 0744 | 0745 | 0746 | 0747 | 0748 | 0749 | 0750 | 0751 | 0752 | 0753 | 0754 | 0755 | 0756 | 0757 | 0758 | 0759 | 0760 | 0761 | 0762 | 0763 | 0764 | 0765 | 0766 | 0767 | 0768 | 0769 | 0770 | 0771 | 0772 | 0773 | 0774 | 0775 | 0776 | 0777 | 0778 | 0779 | 0780 | 0781 | 0782 | 0783 | 0784 | 0785 | 0786 | 0787 | 0788 | 0789 | 0790 | 0791 | 0792 | 0793 | 0794 | 0795 | 0796 | 0797 | 0798 | 0799 | 0800 | 0801 | 0802 | 0803 | 0804 | 0805 | 0806 | 0807 | 0808 | 0809 | 0810 | 0811 | 0812 | 0813 | 0814 | 0815 | 0816 | 0817 | 0818 | 0819 | 0820 | 0821 | 0822 | 0823 | 0824 | 0825 | 0826 | 0827 | 0828 | 0829 | 0830 | 0831 | 0832 | 0833 | 0834 | 0835 | 0836 | 0837 | 0838 | 0839 | 0840 | 0841 | 0842 | 0843 | 0844 | 0845 | 0846 | 0847 | 0848 | 0849 | 0850 | 0851 | 0852 | 0853 | 0854 | 0855 | 0856 | 0857 | 0858 | 0859 | 0860 | 0861 | 0862 | 0863 | 0864 | 0865 | 0866 | 0867 | 0868 | 0869 | 0870 | 0871 | 0872 | 0873 | 0874 | 0875 | 0876 | 0877 | 0878 | 0879 | 0880 | 0881 | 0882 | 0883 | 0884 | 0885 | 0886 | 0887 | 0888 | 0889 | 0890 | 0891 | 0892 | 0893 | 0894 | 0895 | 0896 | 0897 | 0898 | 0899 | 0900 | 0901 | 0902 | 0903 | 0904 | 0905 | 0906 | 0907 | 0908 | 0909 | 0910 | 0911 | 0912 | 0913 | 0914 | 0915 | 0916 | 0917 | 0918 | 0919 | 0920 | 0921 | 0922 | 0923 | 0924 | 0925 | 0926 | 0927 | 0928 | 0929 | 0930 | 0931 | 0932 | 0933 | 0934 | 0935 | 0936 | 0937 | 0938 | 0939 | 0940 | 0941 | 0942 | 0943 | 0944 | 0945 | 0946 | 0947 | 0948 | 0949 | 0950 | 0951 | 0952 | 0953 | 0954 | 0955 | 0956 | 0957 | 0958 | 0959 | 0960 | 0961 | 0962 | 0963 | 0964 | 0965 | 0966 | 0967 | 0968 | 0969 | 0970 | 0971 | 0972 | 0973 | 0974 | 0975 | 0976 | 0977 | 0978 | 0979 | 0980 | 0981 | 0982 | 0983 | 0984 | 0985 | 0986 | 0987 | 0988 | 0989 | 0990 | 0991 | 0992 | 0993 | 0994 | 0995 | 0996 | 0997 | 0998 | 0999 | 1000 | 1001 | 1002 | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 | 1010 | 1011 | 1012 | 1013 | 1014 | 1015 | 1016 | 1017 | 1018 | 1019 | 1020 | 1021 | 1022 | 1023 | 1024 | 1025 | 1026 | 1027 | 1028 | 1029 | 1030 | 1031 | 1032 | 1033 | 1034 | 1035 | 1036 | 1037 | 1038 | 1039 | 1040 | 1041 | 1042 | 1043 | 1044 | 1045 | 1046 | 1047 | 1048 | 1049 | 1050 | 1051 | 1052 | 1053 | 1054 | 1055 | 1056 | 1057 | 1058 | 1059 | 1060 | 1061 | 1062 | 1063 | 1064 | 1065 | 1066 | 1067 | 1068 | 1069 | 1070 | 1071 | 1072 | 1073 | 1074 | 1075 | 1076 | 1077 | 1078 | 1079 | 1080 | 1081 | 1082 | 1083 | 1084 | 1085 | 1086 | 1087 | 1088 | 1089 | 1090 | 1091 | 1092 | 1093 | 1094 | 1095 | 1096 | 1097 | 1098 | 1099 | 1100 | 1101 | 1102 | 1103 | 1104 | 1105 | 1106 | 1107 | 1108 | 1109 | 1110 | 1111 | 1112 | 1113 | 1114 | 1115 | 1116 | 1117 | 1118 | 1119 | 1120 | 1121 | 1122 | 1123 | 1124 | 1125 | 1126 | 1127 | 1128 | 1129 | 1130 | 1131 | 1132 | 1133 | 1134 | 1135 | 1136 | 1137 | 1138 | 1139 | 1140 | 1141 | 1142 | 1143 | 1144 | 1145 | 1146 | 1147 | 1148 | 1149 | 1150 | 1151 | 1152 | 1153 | 1154 | 1155 | 1156 | 1157 | 1158 | 1159 | 1160 | 1161 | 1162 | 1163 | 1164 | 1165 | 1166 | 1167 | 1168 | 1169 | 1170 | 1171 | 1172 | 1173 | 1174 | 1175 | 1176 | 1177 | 1178 | 1179 | 1180 | 1181 | 1182 | 1183 | 1184 | 1185 | 1186 | 1187 | 1188 | 1189 | 1190 | 1191 | 1192 | 1193 | 1194 | 1195 | 1196 | 1197 | 1198 | 1199 | 1200 | 1201 | 1202 | 1203 | 1204 | 1205 | 1206 | 1207 | 1208 | 1209 | 1210 | 1211 | 1212 | 1213 | 1214 | 1215 | 1216 | 1217 | 1218 | 1219 | 1220 | 1221 | 1222 | 1223 | 1224 | 1225 | 1226 | 1227 | 1228 | 1229 | 1230 | 1231 | 1232 | 1233 | 1234 | 1235 | 1236 | 1237 | 1238 | 1239 | 1240 | 1241 | 1242 | 1243 | 1244 | 1245 | 1246 | 1247 | 1248 | 1249 | 1250 | 1251 | 1252 | 1253 | 1254 | 1255 | 1256 | 1257 | 1258 | 1259 | 1260 | 1261 | 1262 | 1263 | 1264 | 1265 | 1266 | 1267 | 1268 | 1269 | 1270 | 1271 | 1272 | 1273 | 1274 | 1275 | 1276 | 1277 | 1278 | 1279 | 1280 | 1281 | 1282 | 1283 | 1284 | 1285 | 1286 | 1287 | 1288 | 1289 | 1290 | 1291 | 1292 | 1293 | 1294 | 1295 | 1296 | 1297 | 1298 | 1299 | 1300 | 1301 | 1302 | 1303 | 1304 | 1305 | 1306 | 1307 | 1308 | 1309 | 1310 | 1311 | 1312 | 1313 | 1314 | 1315 | 1316 | 1317 | 1318 | 1319 | 1320 | 1321 | 1322 | 1323 | 1324 | 1325 | 1326 | 1327 | 1328 | 1329 | 1330 | 1331 | 1332 | 1333 | 1334 | 1335 | 1336 | 1337 | 1338 | 1339 | 1340 | 1341 | 1342 | 1343 | 1344 | 1345 | 1346 | 1347 | 1348 | 1349 | 1350 | 1351 | 1352 | 1353 | 1354 | 1355 | 1356 | 1357 | 1358 | 1359 | 1360 | 1361 | 1362 | 1363 | 1364 | 1365 | 1366 | 1367 | 1368 | 1369 | 1370 | 1371 | 1372 | 1373 | 1374 | 1375 | 1376 | 1377 | 1378 | 1379 | 1380 | 1381 | 1382 | 1383 | 1384 | 1385 | 1386 | 1387 | 1388 | 1389 | 1390 | 1391 | 1392 | 1393 | 1394 | 1395 | 1396 | 1397 | 1398 | 1399 | 1400 | 1401 | 1402 | 1403 | 1404 | 1405 | 1406 | 1407 | 1408 | 1409 | 1410 | 1411 | 1412 | 1413 | 1414 | 1415 | 1416 | 1417 | 1418 | 1419 | 1420 | 1421 | 1422 | 1423 | 1424 | 1425 | 1426 | 1427 | 1428 | 1429 | 1430 | 1431 | 1432 | 1433 | 1434 | 1435 | 1436 | 1437 | 1438 | 1439 | 1440 | 1441 | 1442 | 1443 | 1444 | 1445 | 1446 | 1447 | 1448 | 1449 | 1450 | 1451 | 1452 | 1453 | 1454 | 1455 | 1456 | 1457 | 1458 | 1459 | 1460 | 1461 | 1462 | 1463 | 1464 | 1465 | 1466 | 1467 | 1468 | 1469 | 1470 | 1471 | 1472 | 1473 | 1474 | 1475 | 1476 | 1477 | 1478 | 1479 | 1480 | 1481 | 1482 | 1483 | 1484 | 1485 | 1486 | 1487 | 1488 | 1489 | 1490 | 1491 | 1492 | 1493 | 1494 | 1495 | 1496 | 1497 | 1498 | 1499 | 1500 | 1501 | 1502 | 1503 | 1504 | 1505 | 1506 | 1507 | 1508 | 1509 | 1510 | 1511 | 1512 | 1513 | 1514 | 1515 | 1516 | 1517 | 1518 | 1519 | 1520 | 1521 | 1522 | 1523 | 1524 | 1525 | 1526 | 1527 | 1528 | 1529 | 1530 | 1531 | 1532 | 1533 | 1534 | 1535 | 1536 | 1537 | 1538 | 1539 | 1540 | 1541 | 1542 | 1543 | 1544 | 1545 | 1546 | 1547 | 1548 | 1549 | 1550 | 1551 | 1552 | 1553 | 1554 | 1555 | 1556 | 1557 | 1558 | 1559 | 1560 | 1561 | 1562 | 1563 | 1564 | 1565 | 1566 | 1567 | 1568 | 1569 | 1570 | 1571 | 1572 | 1573 | 1574 | 1575 | 1576 | 1577 | 1578 | 1579 | 1580 | 1581 | 1582 | 1583 | 1584 | 1585 | 1586 | 1587 | 1588 | 1589 | 1590 | 1591 | 1592 | 1593 | 1594 | 1595 | 1596 | 1597 | 1598 | 1599 | 1600 | 1601 | 1602 | 1603 | 1604 | 1605 | 1606 | 1607 | 1608 | 1609 | 1610 | 1611 | 1612 | 1613 | 1614 | 1615 | 1616 | 1617 | 1618 | 1619 | 1620 | 1621 | 1622 | 1623 | 1624 | 1625 | 1626 | 1627 | 1628 | 1629 | 1630 | 1631 | 1632 | 1633 | 1634 | 1635 | 1636 | 1637 | 1638 | 1639 |

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | 0461 | 0343 | 0518 | 0474 | 0583 | 0491 | 0631 | 0392 | 0760 | 0727 | 0557 | 0245 | 0488 | 0727 | 0369 | 0727 | 0706 | 0672 | 0728 | 0728 | 0714 | 0709 | 0602 | 0667 | * TOTALS |
| | ANIMAL ID | 04832 | 04884 | 04888 | 04888 | 04889 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| Esophagus | + | + | + | + | + | + | + | + | + | | + | + | + | | + | + | + | | + | + | + | | | | | 36 |
| Perforation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Periesophageal Tissue, Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Periesophageal Tissue, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | 4.0 |
| Periesophageal Tissue, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 4.0 |
| Intestine Large, Colon | A | + | + | + | + | + | + | + | + | | + | + | + | | A | + | + | + | | + | A | A | | | | 30 |
| Intestine Small, Ileum | A | + | + | A | + | + | A | + | + | | + | + | + | | A | + | + | + | | + | A | A | | | | 24 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | | | | | | | | | | 2 | | | | | | | 2 | | | | | | | | | 4 |
| Basophilic Focus | | | | | | | | | | | X | | | | | | | | | | X | | | | | 8 |
| Clear Cell Focus | | | | | | | | | | | | X | | X | | | X | X | | | X | | | | | 14 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Deformity | | | | | | | | | | | | | | | X | | | | | | | | | | | 1 |
| Degeneration, Cystic | | | | | | | | | | | 1 | | | 2 | | 1 | 1 | 1 | 2 | | | | 2 | | | 22 |
| Fatty Change | | | 4 | | | | | | 2 | | | | | | | | | | | | 2 | | 2 | | | 5 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | X | X | | | | | | | | | | | 3 |
| Infiltration Cellular, Mononuclear Cell | | | | | | 1 | 1 | 1 | | 1 | 1 | 2 | 1 | 1 | | 1 | | 2 | 2 | 2 | 2 | | 1 | | | 36 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | 1 | | | | | | | | | | | | 2 |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | 2 | | | 1 |
| Vacuolization Cytoplasmic | | 2 | | | | 2 | | | | | | | | | 2 | 2 | 1 | 1 | | | | | | | | 15 |
| Bile Duct, Hyperplasia | | 1 | | | | | | | | | | 3 | | | | 1 | | | | 3 | | 1 | | | | 16 |
| Biliary Tract, Cyst | | | | | | X | | | | | | | | | | | | | | | | | | | | 1 |
| Biliary Tract, Fibrosis | | | | | | | | | | | 1 | | | | | | | | | 1 | | 2 | 1 | | 1 | 15 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|
| | 04 | 03 | 05 | 04 | 05 | 04 | 06 | 03 | 06 | 07 | 07 | 05 | 02 | 04 | 07 | 03 | 07 | 07 | 06 | 07 | | 07 | 06 | 06 |
| ANIMAL ID | 08 | 08 | 08 | 08 | 08 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 |
| | 1 | 3 | 8 | 4 | 3 | 1 | 1 | 2 | 0 | 7 | 0 | 7 | 5 | 4 | 8 | 2 | 6 | 2 | 0 | 1 | 2 | 2 | 8 | 6 |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

Oval Cell, Hyperplasia

1

1 1.0

Mesentery

1

Fat, Necrosis

1 4.0

Pancreas

Basophilic Focus

Infiltration Cellular, Lymphocyte

Inflammation, Chronic Active

Lipomatosis

Pigmentation

Acinus, Degeneration

Artery, Mineralization

Duct, Dilatation

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | 1 | |
| | 1 | 1 | | 1 | 2 | | 2 | | 2 | | 3 | 2 | 1 | | 1 | | 1 | 2 | 2 | 1 | 3 | 3 | 1 | | 38 | 1.8 |
| | | | | | | | 2 | 3 | | 3 | | 4 | 2 | | | | 3 | | | 3 | | | 2 | | 11 | 2.8 |
| | 2 | 1 | | 1 | 2 | | | | 2 | | 2 | | 1 | 1 | | | | 1 | | 2 | | 1 | | 1 | 26 | 1.3 |
| | 1 | 2 | | 2 | 2 | | 2 | 3 | 3 | 1 | 4 | 2 | 2 | 1 | 2 | | 2 | 2 | 2 | 2 | 3 | 4 | 2 | | 43 | 2.3 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |

Stomach, Forestomach

Cyst Epithelial Inclusion

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|--|---|---|---|--|---|--|---|---|---|--|---|---|---|--|----|---|--|
| | + | + | + | + | + | + | + | + | | + | + | + | | + | | + | + | + | | + | + | + | | 36 | 1 | |
| | | | X | | | | | | | | | | | | | | | | | | | | | | | |

Stomach, Glandular

Mineralization

Epithelium, Hyperplasia

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|--|---|---|---|--|---|--|---|---|---|--|---|---|---|---|----|---|-----|
| | + | + | + | + | + | + | + | + | | + | + | + | | A | | + | + | + | | + | A | + | | 32 | 3 | 3.0 |
| | | | | | | 2 | | | | | | | | | | | | | | | | | 4 | | 1 | 3.0 |

CARDIOVASCULAR SYSTEM

Blood Vessel

Dilatation

Mineralization

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 4.0 |
| | | | | | | 4 | | | | | | | | | | | | | | | | | | 3 | | 3 | 3.7 |

Heart

Cardiomyopathy

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 45 | 2.1 |
| | 3 | 1 | 1 | 1 | 2 | 2 | 1 | | 2 | 1 | 3 | 2 | | 4 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 4 | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|-------|----|----|
| | 04 | 03 | 05 | 04 | 05 | 04 | 06 | 03 | 06 | 07 | 07 | 05 | 02 | 04 | 07 | 03 | 07 | 07 | 06 | 07 | | 07 | 06 | 06 |
| ANIMAL ID | 04 | 04 | 04 | 04 | 04 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 |
| | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 3 | 4 | 4 | 4 | 5 | 5 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| Mineralization | 3 | | | | | | | | | | | | | | | | | | | | 2 | 3 3.0 | | |
| Ventricle, Dilatation | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|---|-------|---|--------|-----|---|--------|---|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 3 | 2 1 | 2 | 7 1.7 | | | | | | | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | | | | | | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 2 3.5 | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 3 | 1 | 3 | 14 2.0 | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 | | | 6 1.7 | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2 2 2 | 1 | 2 | 3 | 4 | 18 2.5 | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4 | 3 | 4 | | | | 8 3.8 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | 2 4.0 | | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | X | | | | 6 | | |
| Pars Distalis, Cyst Multilocular | | | | | | | | | | | | | | | | | | | | | | | | | | | X | X | | | 3 | | |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | 2 | | 2 1 | 2 | 3 | 3 | 15 2.2 |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | | | 3 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|
| | 04 | 03 | 05 | 04 | 05 | 04 | 06 | 03 | 06 | 07 | 07 | 05 | 02 | 04 | 07 | 03 | 07 | 07 | 06 | 07 | | 07 | 06 | 06 |
| ANIMAL ID | 04 | 04 | 04 | 04 | 04 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 06 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 |
| | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 3 | 4 | 4 | 4 | 5 | 5 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Thyroid Gland | A | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 44 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | |
| Ultimobranhial Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| C-cell, Hyperplasia | | | | 1 | | 2 | | | | 2 | 2 | 1 | | 3 | | | | | | | 1 | 2 | | 15 |
| Follicular Cell, Hyperplasia | | | 2 | | | | | | | 3 | 2 | | | | | | | | | | | 2 | | 6 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Exfoliated Germ Cell | 2 | | | | | | 2 | | | | | | | | | | | | | | | | 3 | 12 |
| Granuloma Sperm | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hypospermia | 4 | 4 | | | | 4 | | | | 4 | 4 | | | | 4 | | | 4 | 4 | | | 4 | | 14 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | 1 | | | | | | 1 | | 1 | 1 | | | 2 | | 15 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| Fat Pad, Epididymal | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | | | 13 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 04
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 Bisphenol A
 CAS Number: 80-05-7
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Date Report Requested: 08/16/2017
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0461 | 0343 | 0518 | 0474 | 0583 | 0491 | 0631 | 0392 | 0610 | 0772 | 0750 | 0524 | 0248 | 0773 | 0369 | 0727 | 0776 | 0618 | 0728 | 0728 | | 0714 | 0609 |
| ANIMAL ID | 04832 | 04841 | 04844 | 04851 | 04855 | 04861 | 04866 | 04866 | 04869 | 04869 | 04869 | 04869 | 04869 | 04869 | 04869 | 04869 | 04869 | 04869 | 04869 | 04869 | 04869 | 04869 | 04869 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Polyarteritis | | | | 1 | 2 | 2 | | 4 | 3 | | 2 | | 2 | | 2 | | 4 | | 4 | 3 | | 2 | 20 | 2.6 | |
| Seminiferous Tubule, Degeneration | 4 | 4 | | | 4 | 2 | | 4 | 4 | | 1 | | 2 | 4 | 2 | | 4 | 4 | | 4 | 2 | | 2 | 35 | 2.7 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3.0 |
| Lymph Node | | | + | | | + | + | | + | | | | | + | | + | + | + | | | | | + | 15 | |
| Inguinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Inguinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Lumbar, Degeneration, Cystic | | | | | | | | | 4 | | | | | 4 | | | | 4 | | | | | | 4 | 3.8 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | 4 | | 4 | | | | | | | | 4 | 3.8 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | 4 | | | | | | | | 4 | | 4 | | 3 | | | | | | 6 | 3.8 |
| Popliteal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | 3 | 4 | | | | | | 4 | 6 | 3.7 |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | 4 | | | | | | | 3 | 3 | 3.3 |
| Renal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | 4 | | | | | | | | | 2 | | | | | | | | | 2 | 3.0 |
| Lymph Node, Mandibular | | | + | | | + | + | | | | | + | | | | | | | + | | | | | 8 | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | 4 | | 2 | 3.5 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 2 | | | | | | | | | | 3 | | 4 | 3.0 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | 3 | | 1 | 3.0 |
| Infiltration Cellular, Plasma Cell | | | | | | 4 | | | | | | 2 | | | | | | | | | | | | 4 | 3.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
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Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Lymph Node, Mesenteric | + | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Spleen | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 47 | |
| Hematopoietic Cell Proliferation | | | | | | 4 | | | | 2 | | | 2 | | | | | 1 | | | | | | | | 11 | 2.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Necrosis | | | 4 | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Pigmentation | | | | | 1 | 2 | | 2 | 1 | 3 | | 2 | | 2 | | 1 | | | | 3 | 2 | 3 | | | | 23 | 2.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Atrophy | 2 | 2 | | 4 | 4 | 4 | 4 | | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 47 | 3.8 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | X | | 2 | |
| Alveolus, Degeneration | | | 4 | | | 4 | 4 | | | 2 | 4 | | | 4 | 4 | 2 | 3 | | 4 | | | | | | | 22 | 3.5 |
| Alveolus, Dilatation | | | | | 2 | | | | | 2 | | | | | | | | | | 3 | 2 | 2 | | | | 10 | 2.2 |
| Duct, Dilatation | | | | | 2 | | | | | 2 | | 2 | | | | | | | | 3 | 3 | 3 | | | | 11 | 2.5 |
| Skin | | | | | | | + | | | | + | + | | | + | + | + | | | | + | | | + | 14 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Cyst Epithelial Inclusion | | | | | | | | | | | | X | | | | | | | | | | | X | | 6 | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Inflammation, Granulomatous | | | | | | | | | | | 4 | | | | | | | | | | | | | | | 1 | 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Epithelium, Foot, Hyperplasia | | | | | | | 4 | | | | | 4 | | | 4 | | | | | | | | | | | 4 | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0461 | 0343 | 0518 | 0474 | 0583 | 0491 | 0631 | 0362 | 0670 | 0777 | 0525 | 0244 | 0778 | 0369 | 0777 | 0676 | 0772 | 0672 | 0778 | 0674 | | 0669 | 0667 |
| ANIMAL ID | 04832 | 04884 | 04884 | 04884 | 04884 | 06699 | 06699 | 06699 | 06699 | 06699 | 06699 | 06699 | 06699 | 06699 | 06699 | 08877 | 08877 | 08877 | 08877 | 08877 | 08877 | 08877 | 08877 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|-----|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|---|-----|---|---|-----|-----|
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ventricle, Dilatation | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 1 | 1 | 3 | 5 | 1.8 | | | | | | | | | | | | | | | | | | | | | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 9 | | | | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | 6 | 1.7 | | | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | + | + | + | | | | | | | | | | | | | | | | | | | | | 9 | | | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | + | + | + | | | | | | | | | | | | | | | | | | | | | | 9 | | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | + | + | + | | | | | | | | | | | | | | | | | | | | | | 8 | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.0 | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | + | + | + | | | | | | | | | | | | | | | | | | | | | | | 8 | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 | | | | | | | | | | | | | | | | | | | | | | 7 | 2.1 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | + | + | + | | | | | | | | | | | | | | | | | | | | | | | 8 | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|----|-----|
| Lung | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 38 | | | |
| Congestion | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4.0 |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | 1.6 |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
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 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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 1) Minimal 3) Moderate
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
4
6
1 | 0
3
4
3 | 0
5
1
8 | 0
4
7
4 | 0
5
8
3 | 0
4
9
1 | 0
6
3
1 | 0
3
9
2 | 0
6
1
0 | 0
7
2
7 | 0
7
2
0 | 0
5
4
5 | 0
2
4
6 | 0
7
8
7 | 0
3
6
9 | 0
7
2
7 | 0
6
0
6 | 0
7
1
8 | 0
7
2
8 | 0
7
2
8 | | 0
7
1
4 | 0
6
0
9 | 0
6
2
7 |
| ANIMAL ID | 0
4
8
3
2 | 0
4
8
4
1 | 0
4
8
4
2 | 0
4
8
5
1 | 0
4
8
5
2 | 0
6
9
1
1 | 0
6
9
1
2 | 0
6
9
2
2 | 0
6
9
2
3 | 0
6
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3
2 | 0
6
9
3
4 | 0
6
9
4
2 | 0
6
9
5
1 | 0
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9
5
2 | 0
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7
5
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7
6
1 | 0
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2 | 0
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1 | 0
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2 | 0
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9
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1 | 0
8
9
9
2 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|--|---|---|---|--|---|---|---|---|---|---|---|---|---|---|----|--------|
| Nose | + | + | + | + | + | + | + | + | + | | + | + | + | | + | + | + | | + | + | + | | + | + | + | 34 |
| Autolysis | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 1 4.0 |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | 5 2.2 |
| Inflammation, Chronic Active | | 4 | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | 3 | | | 2 | | | | | | | | | | 3 | 2 | 4 | | | | 4 | 4 | | | 13 2.9 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | 2 | | | | | | | | | | | | | | 2 | | | | | | 3 | | | 4 2.8 |
| Respiratory Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Respiratory Epithelium, Hyperplasia, Goblet Cell | | | | | | 2 | | | | | | | | | | | | | | | | 2 | | | | 6 2.2 |
| Trachea | A | + | + | A | + | + | + | + | + | | + | + | + | | A | + | + | + | | + | A | A | | | 27 | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cataract | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Accumulation, Hyaline Droplet | | | 4 | | | | | | | | | | | | | | | | | | | | 4 | | | 2 4.0 |
| Casts Protein | | | | | | | 2 | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | 1 | 1 | | | | 2 | | | | | 2 | | 8 1.5 |
| Mineralization | | | | | | 3 | | | | | | | | | | | | | | | | | | 2 | | 5 2.8 |
| Nephropathy | 2 | 2 | | 2 | 4 | 4 | 3 | | 4 | 4 | 2 | 3 | 1 | 2 | 4 | 2 | 4 | 2 | 3 | 1 | 3 | 3 | 4 | 2 | 4 | 45 2.9 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
| | 0461 | 0343 | 0518 | 0474 | 0583 | 0491 | 0631 | 0392 | 0610 | 0772 | 0750 | 0545 | 0486 | 0779 | 0367 | 0727 | 0018 | 0676 | 0772 | 0728 | 0778 | 0774 | 0779 | 0662 | | 0667 |
| ANIMAL ID | 04832 | 04841 | 04842 | 04881 | 04882 | 04891 | 04892 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | 04899 | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Artery, Intima, Proliferation | | | | | | | 3 | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Cortex, Cyst | | | | | | | | | | | | | | X | | | | | | | X | X | | | | 10 |
| Pelvis, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Renal Tubule, Cyst | X | | | X | | X | | | X | X | | | | X | X | | | | X | X | X | X | | | X | 21 |
| Renal Tubule, Hyperplasia, Atypical | | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Transitional Epithelium, Hyperplasia | | | | | | | 4 | | | | | | | | 1 | | | | | | | | | 2 | | 7 1.6 |
| Urinary Bladder | | | | | | | | | + | | | | | | | | | | | | | | | | | 5 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 4 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| | 0302 | 0308 | 0304 | 0304 | 0307 | 0307 | 0305 | 0307 | 0305 | 0306 | 0307 | 0307 | 0304 | 0307 | 0307 | 0304 | 0307 | 0306 | 0304 | 0305 | 0307 | 0307 | 0307 | 0306 | |
| ANIMAL ID | 00651 | 00662 | 00666 | 00666 | 00667 | 00667 | 00668 | 00666 | 00666 | 00666 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00669 | 00669 | 00669 | 00669 | 00669 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | | | + | | + | + | | | + | | | + | + | + | + | | | | | + | |
| Intestine Large, Colon | + | + | + | + | | | + | | + | + | | | + | | | | + | A | + | + | A | | | + | |
| Intestine Small, Duodenum | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Intestine Small, Ileum | + | + | + | + | | | + | | + | + | | | + | | | | + | A | + | + | A | | | + | |
| Intestine Small, Jejunum
Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | | | | | 2 | | | | | | | | | | 2 | | | | | | | | |
| Bacterium | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | | | | | X | | | | | | X | | | | | | | | | | X | | | |
| Clear Cell Focus | | | X | X | | | | X | | | X | | | | | X | | | | | | | | X | |
| Degeneration, Cystic | | | | | | 3 | 1 | | | | 2 | 1 | | 2 | | | | | 1 | | 1 | | 1 | 3 | |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | X | | | | | | | | | | | | X | | | X | | | | | | |
| Infiltration Cellular, Mononuclear Cell | | | 1 | 1 | 2 | 1 | 1 | 2 | | 1 | 2 | 1 | | 1 | 2 | 1 | 2 | | 1 | 1 | 1 | 1 | | 2 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | X | | | | |
| Tension Lipidosis | | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | 2 | | | | | | | 3 | | 1 | 2 | | | 2 | | | 2 | | 4 | | | | | |
| Bile Duct, Hyperplasia | | | 1 | | 2 | 1 | | 3 | 1 | | 3 | | | | 2 | | | 2 | | | 1 | | 2 | 4 | |
| Biliary Tract, Fibrosis | | | | | 1 | | | 1 | | 1 | 3 | | | | 1 | | | | | 1 | 2 | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0302 | 0305 | 0305 | 0305 | 0307 | 0307 | 0305 | 0307 | 0305 | 0306 | 0307 | 0307 | 0304 | 0307 | 0307 | 0304 | 0307 | 0306 | 0304 | 0305 | 0307 | 0307 | 0307 | 0306 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00651 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00652 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00653 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00654 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00655 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00656 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00657 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00658 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00659 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00660 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00661 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00662 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00663 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00664 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00665 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00666 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00667 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00668 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00669 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00670 | |

Hepatocyte, Degeneration
 Hepatocyte, Necrosis
 Oval Cell, Hyperplasia

4
 4 2

Mesentery
 Fat, Necrosis

+
 4

Oral Mucosa

+

Pancreas
 Basophilic Focus
 Cyst Multilocular
 Hemorrhage
 Infiltration Cellular, Lymphocyte
 Lipomatosis
 Necrosis
 Pigmentation
 Polyarteritis
 Thrombosis
 Acinus, Degeneration

+
 2 2 1 2 2 2 1 1 2 2 2 1 2 2 1 2 2 3 3 3
 2 2 4 3 2
 2 1 1 1 1 2 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1
 4 3 3 4 2 3 2 2 3 2 3 3 1 4 3 3 3 1 3 4 4

Stomach, Forestomach
 Epithelium, Hyperplasia

+ + + + + + + + + + + + + + + + +

Stomach, Glandular
 Mineralization
 Epithelium, Hyperplasia

+ + + + + + + + + + + + + + + + +

CARDIOVASCULAR SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|-------|-------|
| | 0302 | 0308 | 0304 | 0304 | 0307 | 0307 | 0305 | 0307 | 0305 | 0306 | 0307 | 0307 | 0304 | 0307 | 0307 | 0304 | 0307 | 0306 | 0304 | 0305 | | 0307 | 0307 | 0307 | 0306 |
| ANIMAL ID | 00651 | 00665 | 00666 | 00666 | 00667 | 00667 | 00668 | 00666 | 00666 | 00666 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 | 00668 |

Pars Distalis, Cyst X X X X
 Pars Distalis, Cyst Multilocular X
 Pars Distalis, Hyperplasia 1 3 2 2 3 2 3
 Pars Distalis, Hypertrophy 3 2

Thyroid Gland +
 Ultimobranchial Cyst X X
 C-cell, Hyperplasia 2 1 1 1 1 3 1 2 1
 Follicular Cell, Hyperplasia 2 3

GENERAL BODY SYSTEM

Tissue NOS +

GENITAL SYSTEM

Coagulating Gland +
 Atrophy
 Inflammation, Suppurative 4

Epididymis +
 Exfoliated Germ Cell 2
 Hypospermia 4 4 4 4
 Infiltration Cellular, Lymphocyte 1 1 1 1
 Polyarteritis

Fat Pad, Epididymal Necrosis + 4

Preputial Gland + + + + + +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
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RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|
| | 0302 | 0305 | 0305 | 0305 | 0307 | 0307 | 0305 | 0307 | 0305 | 0306 | 0307 | 0307 | 0304 | 0307 | 0307 | 0304 | 0307 | 0306 | 0304 | 0305 | 0307 | 0307 | 0307 | 0306 | | | 0307 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00651 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00652 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00653 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00654 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00655 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00656 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00657 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00658 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00659 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00660 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00661 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00662 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00663 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00664 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00665 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00666 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00667 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00668 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00669 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00670 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | 4 | | | | | | 4 | | | | 4 | | | | | | | |
| Duct, Dilatation | | | | | | | | 4 | | | | | | 4 | 4 | | | 4 | 3 | | | | | | | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Cyst, Mucinous | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | 1 | | | | 2 | 2 | 2 | | | | | | 4 | | | | | | |
| Infiltration Cellular, Lymphocyte | | | | | 1 | | | 1 | 1 | 2 | 2 | 1 | | 1 | 1 | | | 2 | | 1 | 4 | | | 1 | | |
| Inflammation, Suppurative | | | 2 | 2 | 1 | 2 | | 1 | 2 | 2 | 2 | 2 | 1 | 2 | 2 | 3 | | 3 | 2 | 1 | 2 | 4 | 1 | 2 | 2 | |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Atrophy | | | | | | | | | | | | | | | 3 | | | | | | | | | 3 | | |
| Fibrosis | | | | | | | | | | | | | | | | | | 4 | | | 4 | | | | | |
| Infiltration Cellular, Lymphocyte | | | 1 | | | | | 1 | 1 | 1 | 1 | 1 | | | | | 3 | 1 | | 1 | 4 | 1 | | 1 | | |
| Inflammation, Suppurative | | | | | | | | | | 1 | | | | 2 | | | 3 | | | | 4 | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | 1 | 2 | | 2 | | | | | | | 3 | | | | | | | | 1 | | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 4 | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | 3 | | 3 | 3 | | | | | | | | | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Polyarteritis | | | | | | | | | 2 | | | | | 1 | | | 1 | | | | | | | 1 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| | 0302 | 0306 | 0311 | 0315 | 0320 | 0324 | 0329 | 0333 | 0338 | 0342 | 0347 | 0351 | 0356 | 0400 | 0404 | 0409 | 0413 | 0418 | 0422 | 0427 | 0431 | 0436 | 0440 | | |
| ANIMAL ID | 00651 | 00652 | 00653 | 00654 | 00655 | 00656 | 00657 | 00658 | 00659 | 00660 | 00661 | 00662 | 00663 | 00664 | 00665 | 00666 | 00667 | 00668 | 00669 | 00670 | 00671 | 00672 | 00673 | 00674 | |
| Seminiferous Tubule, Degeneration | 2 | | 1 | 4 | 1 | 1 | | | 1 | 2 | 2 | 1 | 4 | 2 | 1 | | | 4 | 4 | 2 | | 2 | 3 | 1 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Myeloid Cell, Hyperplasia | | | 4 | | | 4 | | | | 3 | | | 3 | | | | | | | | | | | |
| Lymph Node | + | | | | + | | | | + | + | | | + | | | | | | | + | | | | + |
| Iliac, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | 4 | | |
| Lumbar, Degeneration, Cystic | | | | | 2 | | | | 4 | 4 | | | 4 | | | | | | | | 4 | | | 4 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | 4 | | | | | | | | | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | 4 | | | | 4 | | | | | | | | | | | | | 4 | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | 4 | | |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | + | | | + | | | | | | | | + | | + | | | | | | | | | | + |
| Degeneration, Cystic | | | | 2 | | | | | | | | | | | | | | | | | | | | 3 |
| Hyperplasia, Lymphoid | | | | 4 | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | | | | 2 | | | | | | | | 4 | | 4 | | | | | | | | | | 4 |
| Lymph Node, Mesenteric | + | | | | | | + | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | 3 | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | 3 | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hematopoietic Cell Proliferation | | | | 1 | 2 | | | | | | | 2 | | | | | | | | | | | 1 | 2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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Experiment Number: 10034 - 04
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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0302 | 0305 | 0305 | 0305 | 0307 | 0307 | 0305 | 0307 | 0305 | 0306 | 0307 | 0307 | 0304 | 0307 | 0307 | 0304 | 0307 | 0306 | 0304 | 0305 | 0307 | 0307 | 0307 | 0306 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0065 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0066 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0067 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0068 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0069 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0070 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0071 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0072 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0073 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0074 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0075 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0076 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0077 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0078 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0079 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0080 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0081 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0082 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0083 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0084 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0085 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0086 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0087 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0088 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0089 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0090 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0091 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0092 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0093 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0094 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0095 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0096 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0097 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0098 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0099 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0100 | |

Respiratory Epithelium, Hyperplasia, Goblet Cell

2 2

Trachea

+ + + + + + + + + + + + + + + + +

SPECIAL SENSES SYSTEM

Eye

Cataract

Fibrosis

Cornea, Inflammation, Chronic Active

Cornea, Ulcer

+
4
4
4
4

Zymbal's Gland

Fibrosis

Inflammation, Suppurative

Duct, Dilatation

URINARY SYSTEM

Kidney

Accumulation, Hyaline Droplet

Infiltration Cellular, Polymorphonuclear

Mineralization

Nephropathy

Polyarteritis

Polycystic Kidney

Cortex, Cyst

Renal Tubule, Cyst

Transitional Epithelium, Hyperplasia

+
 4 1 3 2 4 1 4 4 1 4 4 3 2 2 2 3 2 3 3 3 2 3 4
 2 1
 X X X X X X X X
 X X X X X X
 1 2

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|
| | 0466 | 0788 | 0571 | 0727 | 0522 | 0692 | 0582 | 0349 | 0615 | 0446 | 0038 | 0635 | 0694 | 0663 | 0541 | 0722 | 0778 | 0773 | 0547 | 0764 | | 0679 | 0667 | 0382 | 0632 | |
| ANIMAL ID | 04992 | 05001 | 05501 | 05511 | 05712 | 07712 | 07771 | 07772 | 07771 | 07772 | 07771 | 07772 | 07771 | 07772 | 07771 | 07772 | 08891 | 08892 | 08891 | 08892 | 08891 | 08892 | 08891 | 08892 | 08891 | 08892 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Blood Vessel Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 1 | 2.0 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 44 | 1.9 |
| Cardiomyopathy | 1 | 3 | 1 | 2 | 2 | 1 | 2 | | | 4 | 2 | 4 | 1 | 3 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | | | 1 | 2.0 |
| Mineralization | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | 1 | 2.0 |
| Myocardium, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | 1 | 3.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Adrenal Cortex | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | 48 | 1 | |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Hyperplasia | | | | | | | | | | | | | | | | | | 2 | | | | | | | | 6 | 1.5 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | 2 | | | | | | | | | 1 | 2.0 |
| Vacuolization Cytoplasmic | | | | | | 2 | | | | 4 | | | | | 1 | | 2 | | | | | 2 | | | | 21 | 2.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 8 | 1.6 |
| Hyperplasia | | | | | | | | | | | | | | | | | 1 | 2 | | | | 2 | 2 | | | 8 | 1.6 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | 49 | 1 | 4.0 |
| Hyperplasia | | | | | | | | | | | | | | 4 | | | | | | | | | | | | 1 | 4.0 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 18 | 1.8 |
| Hyperplasia | | 1 | 2 | | 2 | | | | | 4 | | 3 | | 3 | | | 4 | | 1 | | | | 2 | | | 18 | 1.8 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 9 | 3.9 |
| Angiectasis | | | 4 | | | | | | | | | | 4 | 4 | | | | | 3 | | | | | | | 9 | 3.9 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0466 | 0708 | 0571 | 0727 | 0527 | 0652 | 0532 | 0369 | 0064 | 0045 | 0063 | 0066 | 0066 | 0054 | 0071 | 0077 | 0077 | 0077 | 0053 | 0074 | | 0066 | 0038 |
| ANIMAL ID | 04992 | 05001 | 05002 | 05003 | 05004 | 05005 | 05006 | 05007 | 05008 | 05009 | 05010 | 05011 | 05012 | 05013 | 05014 | 05015 | 05016 | 05017 | 05018 | 05019 | 05020 | 05021 | 05022 |
| | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|--|--|--|--|---|---|---|--|--|--|---|---|--|--|---|---|---|--|--|---|---|--|----|-----|
| Pars Distalis, Cyst | | | | | | X | | | | | | | | | | | | | | | | | | 5 | |
| Pars Distalis, Cyst Multilocular | | | | | | | X | | | | | | X | | | | | | | | | | | 4 | |
| Pars Distalis, Hyperplasia | | | | | | | | 3 | | | | 2 | 2 | | | 2 | 1 | 4 | | | 1 | 1 | | 17 | 2.2 |
| Pars Distalis, Hypertrophy | | | | | | | | 2 | | | | | 2 | | | | | 2 | | | | | | 3 | 2.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Thyroid Gland | + | + | A | + | + | + | A | + | + | + | A | A | + | + | + | + | + | + | A | + | + | + | + | A | 44 |
| Ultimobranchial Cyst | | | | | | | | | | | | | | | | | X | | | X | | | | 5 | |
| C-cell, Hyperplasia | | | 2 | | 3 | 2 | | | | | | | 2 | | | 1 | 1 | 2 | | | | | | 20 | 1.6 |
| Follicular Cell, Hyperplasia | | | 4 | | | | | | | | | | | | | | | | | | | | | 3 | 3.0 |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | 1 |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Coagulating Gland | + | + | A | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | + | 46 | |
| Atrophy | | | | | | | 3 | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Exfoliated Germ Cell | | | 1 | | 2 | | 1 | | 2 | 3 | | | 2 | | | | 2 | | | 2 | 1 | | | 13 | 1.8 |
| Hypospermia | | | | | | | | | | 4 | | 4 | 4 | 4 | | | 4 | | | | | | | 11 | 3.9 |
| Infiltration Cellular, Lymphocyte | | | | 1 | | 1 | | | | | 2 | 1 | | | 1 | | 1 | 1 | | | 1 | 2 | | 14 | 1.1 |
| Polyarteritis | | | | | | | | | | | 2 | 2 | | 2 | | | | | | | | | 3 | 4 | 2.3 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Fat Pad, Epididymal | + | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Necrosis | 4 | | | | | | 4 | | | | | | | | | | | | | | | | | 3 | 4.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|--|---|---|---|--|---|--|--|--|--|--|--|--|---|---|---|--|--|--|---|--|---|--|----|
| Preputial Gland | | + | + | + | | + | | | | | | | | + | + | + | | | | + | | + | | 16 |
|-----------------|--|---|---|---|--|---|--|--|--|--|--|--|--|---|---|---|--|--|--|---|--|---|--|----|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|--------|--------|
| | 0466 | 0788 | 0571 | 0727 | 0522 | 0692 | 0582 | 0349 | 0615 | 0446 | 0038 | 0665 | 0664 | 0541 | 0722 | 0722 | 0733 | 0547 | 0764 | 0677 | | 0668 | 0383 | 0632 |
| ANIMAL ID | 04992 | 05001 | 05501 | 05511 | 05715 | 07755 | 07776 | 07777 | 07777 | 07777 | 07777 | 07777 | 07777 | 07777 | 07777 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 | 08888 |
| Atrophy | | | | | 4 | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Hyperkeratosis | | | | 4 | | | | | | | | | | | | | 4 | | | | | | | 2 4.0 |
| Inflammation, Suppurative | | 4 | 2 | 4 | | | | | | | | | | | | 2 | | | | | 4 | | | 8 3.5 |
| Duct, Dilatation | | 4 | 2 | 3 | | | | | | | | | | 4 | | 3 | 4 | | | 4 | | 4 | | 13 3.6 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Atrophy | | | | | 2 | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Cyst, Mucinous | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fibrosis | | | 2 | | | 2 | | | | | | | 2 | | 2 | | | 2 | | | | | | 10 2.1 |
| Infiltration Cellular, Lymphocyte | | 2 | 2 | | 2 | 1 | 1 | | 1 | | | 1 | 1 | 1 | | 1 | 1 | 1 | | 2 | 2 | | 27 1.4 | |
| Inflammation, Suppurative | 1 | 2 | 2 | 1 | 3 | 2 | 2 | 2 | 2 | | | 2 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | | 3 | 2 | 43 2.0 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Atrophy | | | | | 3 | | | | 2 | | | | 3 | | | | | | | | | | | 5 2.8 |
| Fibrosis | | | 2 | | | | | | | | | | | | | | | | 1 | | | | | 4 2.8 |
| Infiltration Cellular, Lymphocyte | 1 | | 2 | 1 | 1 | | | | | | | | | 2 | 1 | | | | 2 | | | | 1 | 20 1.4 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | 5 2.4 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Epithelium, Hyperplasia | | 1 | 3 | | | 2 | | | | | | 3 | | | 2 | | 2 | | 2 | | | | | 12 2.0 |
| Seminal Vesicle | + | + | A | + | + | + | A | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | + | 44 |
| Atrophy | | | | | 3 | | | | | 3 | | | | | | | | | | | | | | 3 3.3 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | 2 | | | | | | | | | | | 1 2.0 |
| Necrosis | | | | | | | | | | | | | 2 | | | | | | | | | | | 1 2.0 |
| Polyarteritis | | | | | | | | | | | | | 2 | | | | | | | | | | | 1 2.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | 2 | | | | 2 | | 2 | | | | | 4 2.8 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Polyarteritis | | | 3 | | | 1 | 4 | | | | 3 | 2 | 4 | | | 4 | | 2 | 3 | | 1 | | 3 | 16 2.4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-----------|------------|
| | 0466 | 0788 | 0571 | 0727 | 0527 | 0692 | 0582 | 0349 | 0615 | 0446 | 0038 | 0669 | 0654 | 0663 | 0664 | 0541 | 0722 | 0722 | 0773 | 0547 | | 0764 | 0667 | 0382 | 0632 | | |
| ANIMAL ID | 04992 | 05001 | 05501 | 05511 | 05712 | 07711 | 07721 | 07771 | 07772 | 07773 | 07774 | 07775 | 07776 | 07777 | 07778 | 07881 | 07882 | 07883 | 07884 | 07885 | 07886 | 07887 | 07888 | 07889 | 07880 | | |
| Seminiferous Tubule, Degeneration | 1 | | 2 | 2 | | 2 | 1 | 1 | 4 | 1 | 4 | 4 | 4 | 4 | 1 | 1 | | 4 | 1 | 1 | 2 | 1 | | 1 | | 38 | 2.1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|------------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | 4 | | | | 4 | | | 4 | | | | | | | 7 | 3.7 |
| Lymph Node | | + | | | | | + | + | | + | | | | + | + | | | | | | | + | + | | | 16 | | |
| Iliac, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 | 3.7 |
| Lumbar, Hyperplasia, Lymphoid | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | 2 | 4.0 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4.0 |
| Mediastinal, Hemorrhage | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | 1 | 4.0 |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | 1 | 2.0 |
| Renal, Degeneration, Cystic | | | | | | | | | | | 4 | | | 4 | 4 | | | | | | | 4 | | | | | 5 | 4.0 |
| Renal, Hemorrhage | | | | | | | 4 | | | | 4 | | | | | | | | | | | | | | | | 2 | 4.0 |
| Renal, Infiltration Cellular, Plasma Cell | | | 4 | | | | | | | | | | | | | | | | | | | | | 3 | | | 2 | 3.5 |
| Renal, Pigmentation | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | 1 | 4.0 |
| Lymph Node, Mandibular | | | + | | | | | + | | | | | | | | | | | | | | | | | | 9 | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 2.8 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 3.2 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 | 3.7 |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Hematopoietic Cell Proliferation | | 2 | | | | | | 1 | | | | | | | | | 2 | | | | | | | 4 | | | 10 | 1.8 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
| | 0466 | 0708 | 0571 | 0777 | 0552 | 0672 | 0572 | 0369 | 0645 | 0414 | 0636 | 0669 | 0645 | 0574 | 0722 | 0722 | 0738 | 0570 | 0745 | 0669 | | 0637 | 0382 | 0632 |
| ANIMAL ID | 04992 | 05000 | 05000 | 05001 | 05001 | 05005 | 05005 | 05006 | 05006 | 05007 | 05007 | 05007 | 05007 | 05007 | 05008 | 05008 | 05008 | 05008 | 05008 | 05008 | 05008 | 05008 | 05008 | 05008 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|----|--------|
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | 14 | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | | 14 | |
| Spinal Cord, Cervical Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 14 | 1 2.0 |
| Spinal Cord, Lumbar Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | 14 | 13 1.5 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | | | 14 | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|--|---|--|--|---|---|---|---|---|---|----|-------|
| Lung | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | 35 | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | 1 4.0 |
| Foreign Body | | X | | | X | | | | | | | | | | | | | | | | | | | | | | 2 |
| Infiltration Cellular, Histiocyte | 1 | | | | | | | | | 3 | | | 2 | | | | 3 | | | | | | | | | | 4 2.3 |
| Inflammation, Suppurative | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Granulomatous | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | 1 2.0 |
| Pleura, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Nose | + | + | A | | + | + | + | + | + | + | + | + | + | + | | | | | | A | + | + | + | + | + | 32 | |
| Autolysis | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 1 4.0 |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | 1 2.0 |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | X | | | | | | 2 |
| Inflammation, Suppurative | | | | | | | | | | 2 | | | | | | | | | | | 2 | | | | | | 3 2.7 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | | 3 | | | | 2 | | | | | 1 | | | | | | 2 | | 2 | | | | | 5 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
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|--|---|---|---|--|---|---|---|---|---|---|---|--|---|---|---|---|---|--|---|---|---|--|---|--|
| Stomach, Forestomach
Cyst Epithelial Inclusion
Epithelium, Hyperplasia | + | + | + | | + | + | + | + | + | + | + | | + | + | + | + | + | | A | + | + | | + | |
| Stomach, Glandular | + | + | + | | + | + | + | + | + | + | + | | + | + | + | + | + | | A | + | + | | + | |
| Tongue | | | | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel
Mineralization
Intima, Proliferation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | 1 | 4 |
| Heart
Cardiomyopathy
Fibrosis
Inflammation, Chronic Active
Metaplasia, Osseous
Thrombosis
Endocardium, Hyperplasia
Myocardium, Necrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 1 | 2 | 3 | 2 | 2 | 1 | 1 | 2 | | 3 | 3 | 2 | | 1 | 2 | 2 | 2 | 4 | 1 | 1 | 1 | 2 | 2 | 3 |
| | | | | | | | | | 3 | | | | | | | | | | | | | | | |
| | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| | | | | | | | | | 3 | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex
Angiectasis
Degeneration, Cystic
Hyperplasia
Hypertrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| | | | | | | | 4 | | | | | | | | | | | | | | | | 1 | |
| | | | | | | | | | | 2 | 1 | | 2 | | | 2 | | | | 1 | | | | |
| | | | | | | | | | 1 | | | | | | | | 2 | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|--------------------|
| | 0
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2 | 0
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0 | 0
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5 | 0
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2 | 0
7
3
5 | 0
5
6
5 | 0
4
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7 | 0
3
8
1 | 0
6
6
4 | 0
7
2
7 | 0
3
0
5 | 0
6
3
8 | 0
6
5
6 | 0
7
2
9 | 0
6
4
9 | 0
7
2
9 | | |
| ANIMAL ID | 0
0
8
1
1 | 0
0
8
1
2 | 0
0
8
2
1 | 0
0
8
3
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0
8
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1
3
4 | 0
5
1
4
1 | 0
5
1
4
2 | 0
5
1
5
1 | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Adrenal Medulla
Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Islets, Pancreatic | | | | | | | | | | | | | | | | | | | | | | | | | A |
| Parathyroid Gland
Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Pituitary Gland
Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Pars Distalis, Cyst Multilocular | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 2 1 |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | 3 1 |
| Pars Distalis, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Rathke's Cleft, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Thyroid Gland
Ultimobranchial Cyst | | | | | | | | | | | | | | | | | | | | | | | | | X |
| C-cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 2 3 2 1 |
| Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 2 3 |

GENERAL BODY SYSTEM

Peritoneum +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
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 Bisphenol A
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 2 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|-------|-------|
| | 0312 | 0761 | 0678 | 0572 | 0353 | 0572 | 0730 | 0300 | 0634 | 0682 | 0723 | 0546 | 0338 | 0665 | 0472 | 0773 | 0336 | 0666 | 0776 | 0367 | | 0667 | 0767 | 0367 | 0676 |
| ANIMAL ID | 00811 | 00821 | 00831 | 00841 | 00851 | 00861 | 00871 | 00881 | 00891 | 00901 | 00911 | 00921 | 00931 | 00941 | 00951 | 00961 | 00971 | 00981 | 00991 | 01001 | 01011 | 01021 | 01031 | 01041 | 01051 |
| Infiltration Cellular, Lymphocyte Inflammation, Suppurative | 2 | 2 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 4 | 2 | 3 | 2 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | 3 | |
| Prostate, Ventral Lobe Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Fibrosis | | | | | | | | | | 2 | | | 4 | | | 2 | | 2 | | 1 | | | | | |
| Infiltration Cellular, Lymphocyte Inflammation, Suppurative Epithelium, Hyperplasia | | | 1 | | 1 | | | | | 3 | | 1 | 4 | | 1 | 2 | 1 | 1 | | | | | | | |
| Seminal Vesicle Atrophy | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active Epithelium, Hyperplasia | | | | | | | | | | 2 | | | 2 | | | 3 | | | | | | | | | |
| Lumen, Dilatation | | | | | | | 4 | | | | | | | | | | | | | | | | | | |
| Testes Polyarteritis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Seminiferous Tubule, Degeneration | | 4 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 1 | 4 | 4 | 2 | | 2 | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow Hypocellularity | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + |
| Myeloid Cell, Hyperplasia | | | | 4 | | | | | | | | | 4 | | | | | | 3 | | | | |
| Lymph Node Axillary, Hyperplasia, Lymphoid | | + | | | | | | | | | | + | + | | | + | | | | | + | | |
| Axillary, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | 3 | | | | | 4 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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 M .. Missing tissue
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------------------|-----------|--------------------|
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9 | 0
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9 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
0
8
1
1 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0
0
8
1
1 | | |

Skeletal Muscle

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Compression | | 2 | | | | | 4 | | | | | | | | | | | | | 3 | | | 3 | 3 | |
| Hemorrhage | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Hemorrhage | 3 | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Necrosis | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Ventricle, Dilatation | | | | | | | 2 | | | | | | | | | | | | | 2 | | | 2 | 1 | |
| Nerve Trigeminal | + | | | | | | + | | | | | | | | | | | | | + | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | 3 | | | | | |
| Peripheral Nerve, Sciatic | + | | | | | | + | | | | | | | | | | | | | + | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Tibial | + | | | | | | + | | | | | | | | | | | | | + | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Cervical | + | | | | | | + | | | | | | | | | | | | | + | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Lumbar | + | | | | | | + | | | | | | | | | | | | | + | | | | | |
| Axon, Degeneration | | | | | | | 1 | | | | | | | | | | | | | 2 | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|---|-----|---|----|----|-----|
| | 05060 | 0533 | 0726 | 0384 | 0597 | 0510 | 0662 | 0663 | 0772 | 0413 | 0766 | 0614 | 0567 | 0651 | 0533 | 0775 | 0773 | 0588 | 0651 | 0726 | | | | | | | |
| ANIMAL ID | 051152 | 051161 | 051166 | 051171 | 051177 | 051177 | 051177 | 051177 | 051177 | 051177 | 051177 | 051177 | 051177 | 051177 | 051177 | 051177 | 051177 | 051177 | 051177 | 051177 | 051177 | | | | | | |
| Congestion | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | | | | |
| Degeneration, Cystic | | | 2 | | | | | | | | | | | | | | | | | | | 1 | 3 | 2 | 1 | 18 | 1.3 |
| Fatty Change | | | | | | | 4 | | | | | | | | | | | | | | | 2 | | | | 2 | 3.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | X | | | | | | | | | | | | 5 | |
| Infiltration Cellular, Mononuclear Cell | 1 | 1 | 1 | 1 | 2 | 1 | 2 | | | 1 | | 1 | | | | 2 | | | 2 | 1 | 1 | | | | | 28 | 1.3 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Inflammation, Chronic Active | | | | | 2 | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pigmentation | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Polyarteritis | | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 | 1.0 |
| Tension Lipidosis | | | | 4 | | | | | | | 4 | | | | | | | | | | | | | | | 7 | 2.7 |
| Vacuolization Cytoplasmic | 3 | 2 | 2 | | | | | 4 | 2 | | | | | | | 4 | | 3 | 1 | | | | | | | 14 | 2.3 |
| Bile Duct, Hyperplasia | | | | | 1 | | 2 | 1 | | | | | | | | 3 | | | 2 | | | | | | | 12 | 1.7 |
| Biliary Tract, Fibrosis | | | | | 1 | | | | | | | | | | | 2 | | | 1 | | | | | | | 10 | 1.3 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | 4 | | | | | | | | | | | | | 1 | 4.0 |
| Oval Cell, Hyperplasia | | | | | | | | 1 | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | | | | 44 | | |
| Basophilic Focus | | | | X | | | | | | X | | | | | | | | | | | | | | | | 4 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Infiltration Cellular, Lymphocyte | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 3 | 1 | | 1 | | 2 | 3 | 2 | | | 2 | 1 | 2 | 1 | 2 | | | | 36 | 1.7 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 |
| Lipomatosis | | | 3 | | | | | | | | | | | | | | | 3 | | | | | | | | 9 | 3.0 |
| Pigmentation | 1 | 2 | | 2 | | 2 | 1 | 2 | | | 1 | | 2 | 1 | | | | 1 | | 1 | | | | | | 26 | 1.4 |
| Polyarteritis | | | | | | | | | | | | | | | 3 | | | | | | | | | | | 1 | 3.0 |
| Acinus, Degeneration | 2 | 3 | 2 | 4 | 1 | 3 | | 3 | 1 | | 2 | | 4 | 3 | 3 | | | 3 | 2 | 2 | 2 | 2 | | | | 37 | 2.6 |

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|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------|--|
| | 0560 | 0533 | 0726 | 0384 | 0597 | 0550 | 0662 | 0663 | 0712 | 0473 | 0766 | 0664 | 0555 | 0663 | 0553 | 0775 | 0772 | 0583 | 0651 | 0726 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 5 | 5 | 7 | 3 | 5 | 5 | 6 | 6 | 7 | 4 | 7 | 6 | 6 | 5 | 6 | 5 | 7 | 7 | 5 | 6 | 0 | |
| | 6 | 3 | 2 | 8 | 9 | 1 | 7 | 0 | 1 | 6 | 2 | 5 | 1 | 3 | 3 | 7 | 2 | 2 | 8 | 5 | 7 | |
| | 0 | 3 | 6 | 4 | 7 | 0 | 2 | 3 | 2 | 3 | 6 | 7 | 4 | 5 | 5 | 3 | 5 | 7 | 3 | 1 | 6 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|--|---|---|---|---|---|---|---|--|---|---|---|---|---|--|---|---|-----------|----------|------------|--|--|
| Stomach, Forestomach
Cyst Epithelial Inclusion
Epithelium, Hyperplasia | + | + | | + | + | + | + | + | + | + | | + | + | + | + | | | + | + | 34 | 1 | 4.0 | | |
| Stomach, Glandular | + | + | | + | + | + | + | + | + | A | | + | + | + | + | + | | + | + | 33 | | | | |
| Tongue | | | | | | | | | | | | | | | | | | | | | | 1 | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|------------|------------|
| Blood Vessel
Mineralization
Intima, Proliferation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | 1 | 1.0 | |
| Heart
Cardiomyopathy
Fibrosis
Inflammation, Chronic Active
Metaplasia, Osseous
Thrombosis
Endocardium, Hyperplasia
Myocardium, Necrosis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | 41 | 2.0 | |
| | 3 | 2 | 2 | 1 | 1 | 1 | 4 | 1 | 3 | 2 | 4 | | 2 | 2 | 1 | | 4 | 4 | | 1 | 2 | | 1 | 3.0 |
| | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| | 2 | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| | | X | | | | | | | | | | | | | | | | | | | | | 1 | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------|------------|------------|
| Adrenal Cortex
Angiectasis
Degeneration, Cystic
Hyperplasia
Hypertrophy | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 45 | 2 | 3.0 | |
| | | | | | | | 4 | | | | | | | | | | | | | | | | 3 | 3.0 |
| | 1 | | | | | | | | | 4 | | | | | | | | | | | | | 7 | 1.4 |
| | | | | 2 | | | | | | | 1 | | | | | | | | | | | | 4 | 1.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------|
| | 0560 | 0533 | 0572 | 0538 | 0559 | 0551 | 0567 | 0566 | 0577 | 0541 | 0577 | 0566 | 0555 | 0566 | 0555 | 0577 | 0577 | 0555 | 0566 | 0577 | |
| ANIMAL ID | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | |
| Vacuolization Cytoplasmic | 2 | | | 2 | | | 4 | | | | | | | 4 | 2 | 2 | 2 | 1 | | 1 | 15 2.3 |
| Adrenal Medulla Hyperplasia | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 45
5 1.6 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Parathyroid Gland Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
12 1.9 |
| Pituitary Gland Angiectasis | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 45
6 3.7 |
| Pars Distalis, Cyst | | | | | | | 4 | | | | 4 | | | | | | | | | 4 | 2 |
| Pars Distalis, Cyst Multilocular | | | | | | | | | | | | X | | | | | | | | | 5 |
| Pars Distalis, Hyperplasia | 2 | 3 | 3 | | | | | | 4 | | 4 | 2 | 4 | | 2 | 2 | | | | | 19 2.4 |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | 2 | | | | | | | | | 1 2.0 |
| Pars Distalis, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | 2 |
| Rathke's Cleft, Cyst | | | | | | | | | | | | | | | | | | | | | 1 |
| Thyroid Gland Ultimobranchial Cyst | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 44
3 |
| C-cell, Hyperplasia | X | | | | | | | | | | | | | | X | | | | | | 3 |
| Follicle, Cyst | 2 | | 1 | | 2 | | | | | | 2 | | | | | 2 | | | | | 11 1.8 |
| Follicular Cell, Hyperplasia | | | X | | | | | | | | | | | | | | | | | | 1 |
| | | | | | | | | | 3 | | | | | | | | | | | | 3 2.7 |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Peritoneum | | | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04
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RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0560 | 0563 | 0572 | 0573 | 0575 | 0575 | 0566 | 0566 | 0577 | 0574 | 0577 | 0566 | 0566 | 0555 | 0566 | 0557 | 0577 | 0557 | 0566 | 0567 | |
| ANIMAL ID | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | 0511 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |

| | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--------------|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | 1 |
| Cyst | | | | | | | | | | | | | | | | | | | | | 1 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | 1 4.0 |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Exfoliated Germ Cell | | | | | | | | | | | | | | | | | | | | | 6 1.7 |
| Hypospermia | | | | | | | | | | | | | | | | | | | | | 9 3.9 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | 15 1.1 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Fat Pad, Epididymal | + | | | | | | | | | | | | | | | | | | | | 1 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Preputial Gland | + | + | | | | | | | | | | | | | | | | | | | 9 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | 2 4.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | 3 3.7 |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | 8 3.4 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Cyst, Mucinous | | | | | | | | | | | | | | | | | | | | | 1 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | 6 2.8 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Lab: NCTR

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RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|
| | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | 050152 | |
| ANIMAL ID | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | 051521 | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Infiltration Cellular, Lymphocyte Inflammation, Suppurative | 1 | | 2 | | 1 | 2 | 4 | | 1 | | | 1 | | | | 1 | | | 2 | | 20 | 1.8 | |
| | 1 | 1 | 3 | 2 | 3 | 3 | 4 | 1 | 2 | 1 | 2 | 4 | | | 2 | 2 | 2 | 2 | 1 | 3 | 2 | 41 | 2.0 |
| Prostate, Ventral Lobe Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| | | | 3 | | | | 4 | | | | | 3 | | | | 3 | | | | | | 5 | 3.2 |
| Fibrosis | | | 4 | 3 | | | 4 | | | | | | | 2 | 3 | | | | | 2 | | 11 | 2.6 |
| Infiltration Cellular, Lymphocyte Inflammation, Suppurative | | | 2 | 2 | | 1 | | 4 | | | | 1 | | | 1 | | | | | 1 | | 15 | 1.7 |
| | | | | 2 | | | | 4 | | | | | 4 | | | | | | 1 | | | 11 | 2.2 |
| Epithelium, Hyperplasia | | | | | | | 1 | | | | | | 4 | | | | | | 2 | | | 8 | 2.5 |
| Seminal Vesicle Atrophy | + | + | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | 43 | |
| | | | | | | | 4 | | | | | | | | 3 | | | | | | | 2 | 3.5 |
| Fibrosis | | | | | | | 4 | | | | | | | | | | | | | | | 1 | 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | 3 | | | 2 | 2.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 3 | 2.7 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Polyarteritis | | | | 1 | | | | | | | | | | 2 | | | 4 | | | 1 | 2 | 10 | 2.1 |
| Seminiferous Tubule, Degeneration | | | 4 | | 1 | 2 | 1 | | | | | | 3 | 3 | 4 | 4 | 4 | 1 | 1 | 1 | | 33 | 1.9 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Bone Marrow Hypocellularity | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | |
| | | | | | | | 4 | | | | | | | | | | | | | | 3 | 4 | 3.5 |
| Myeloid Cell, Hyperplasia | | | 4 | | | | | | | | | | | | | | | | | | | 2 | 4.0 |
| Lymph Node | | | | | | | | | | | + | + | + | + | | | | | | + | | 11 | |
| Axillary, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 2 | 3.5 |
| Axillary, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
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Experiment Number: 10034 - 04

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|-----------------|---------------|
| | 0560 | 0533 | 0726 | 0384 | 0597 | 0550 | 0662 | 0663 | 0772 | 0743 | 0776 | 0666 | 0555 | 0666 | 0553 | 0772 | 0775 | 0556 | 0666 | 0772 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0511 | | |
| | 5 | 5 | 7 | 3 | 5 | 5 | 6 | 6 | 7 | 4 | 7 | 6 | 6 | 5 | 6 | 5 | 7 | 7 | 5 | 6 | 0790 | | |
| | 6 | 3 | 2 | 8 | 9 | 1 | 7 | 0 | 1 | 6 | 2 | 5 | 1 | 3 | 3 | 7 | 2 | 2 | 8 | 5 | 0222 | | |
| | 0 | 3 | 6 | 4 | 7 | 0 | 2 | 3 | 2 | 3 | 6 | 7 | 4 | 5 | 5 | 3 | 5 | 7 | 3 | 1 | 0226 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0551 | | |
| | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 0722 | | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0222 | | |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 0221 | | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 0221 | | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | 4 | 2 3.5 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 4 | 2 4.0 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | 4 | 4 | 4 4.0 |
| Lumbar, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Lumbar, Necrosis | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | 4 | 6 3.8 |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Renal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 4 | 2 4.0 |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | 2 3.5 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | 2 4.0 |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 45 | | |
| Depletion Lymphoid | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | 2 | 13 2.1 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 2 | 1 3.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | 3 | 1 4.0 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | 1 | 24 2.0 |
| | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Thymus | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 43 | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | 4 | 42 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

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 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 5 | 5 | 7 | 3 | 5 | 5 | 6 | 6 | 7 | 4 | 7 | 6 | 6 | 5 | 6 | 5 | 7 | 7 | 5 | 6 | 7 |
| | | 6 | 3 | 2 | 8 | 9 | 1 | 7 | 0 | 1 | 6 | 2 | 5 | 1 | 3 | 3 | 7 | 2 | 2 | 8 | 5 | 2 |
| | | 0 | 3 | 6 | 4 | 7 | 0 | 2 | 3 | 2 | 3 | 6 | 7 | 4 | 5 | 5 | 3 | 5 | 7 | 3 | 1 | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | 45 |
| Galactoceles | | | | | | | | | | | | | | | | | | | X | | | | 1 |
| Alveolus, Degeneration | 3 | 4 | | | | 4 | | | 3 | 4 | | 4 | 3 | | 3 | | | | | | | | 23 3.4 |
| Alveolus, Dilatation | | | | | 2 | | | | | | | | | | | 2 | | | 4 | | 2 | 2 | 9 2.2 |
| Duct, Dilatation | | | | | 3 | | 2 | | | | | | | | | 3 | | | 4 | | 2 | 2 | 11 2.5 |
| Skin | | | | | + | + | + | | + | + | + | | | | + | | | | | | + | | 17 |
| Cyst Epithelial Inclusion | | | | | | | | X | X | | | | | | | | | | | | | | 3 |
| Edema | | | | | 3 | | | | | | | | | | | | | | | | | | 1 3.0 |
| Inflammation, Chronic Active | | | | | 4 | | | | | | | | | | | | | | | | | | 1 4.0 |
| Necrosis | | | | | 4 | | | | | | | | | | | | | | | | | | 1 4.0 |
| Ulcer | | | | | 4 | | | | | | | | | | | | | | | | | | 1 4.0 |
| Epithelium, Hyperplasia | | | | | 4 | | | | | | | | | | | | | | | | | | 1 4.0 |
| Epithelium, Foot, Hyperplasia | | | | | | | | 3 | 4 | 4 | | | | | | | | | | | 4 | | 8 3.9 |
| Foot, Edema | | | | | | | | | | 4 | 4 | | | | | | | | | | 4 | | 5 4.0 |
| Foot, Fibrosis | | | | | | | | 4 | 4 | 4 | | | | | | | | | | | 4 | | 9 4.0 |
| Foot, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Foot, Inflammation, Chronic Active | | | | | | | | 4 | 4 | 4 | | | | | | | | | | | 4 | | 9 4.0 |
| Foot, Necrosis | | | | | | | | 4 | 4 | 4 | | | | | | | | | | | 4 | | 8 4.0 |
| Foot, Ulcer | | | | | | | | 4 | 4 | 4 | | | | | | | | | | | 4 | | 8 4.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Bone | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000BPA M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|------|-----------------|
| | 0560 | 0533 | 0572 | 0538 | 0559 | 0551 | 0567 | 0566 | 0577 | 0541 | 0574 | 0566 | 0566 | 0555 | 0566 | 0553 | 0577 | 0577 | 0555 | 0566 | | | 0567 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0511 | |
| | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 0512 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0515 | |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 0522 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | * TOTALS |

Skeletal Muscle + 1

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Compression | | | | 2 | | | | | | 3 | | | | | | | | | | 1 | | 8 2.6 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Hemorrhage | | | | | | | | | | | | 1 | | | | | | | | | | 1 1.0 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Hemorrhage | | | | | | | | | | | | 1 | | 2 | | | | | | | | 4 2.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Ventricle, Dilatation | | | | | | | | | | | | | | | | | | | | | | 4 1.8 |
| Nerve Trigeminal | | + | | | | + | | + | | | + | | | | | | | | | | 8 | |
| Axon, Degeneration | | 2 | | | | | 4 | | 4 | | | 1 | | | | | | | | | | 5 2.8 |
| Peripheral Nerve, Sciatic | | + | | + | | | + | | + | | | + | | | | | | | | | 8 | |
| Axon, Degeneration | | | | | | | 2 | | | | | | | | | | | | | | | 1 2.0 |
| Peripheral Nerve, Tibial | | + | | + | | | + | | + | | | + | | | | | | | | | 8 | |
| Spinal Cord, Cervical | | + | | + | | | + | | + | | | + | | | | | | | | | 8 | |
| Spinal Cord, Lumbar | | + | | + | | | + | | + | | | + | | | | | | | | | 8 | |
| Axon, Degeneration | | | | | | | 3 | | 3 | | | 1 | | | | | | | | | | 5 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 077 | 066 | 055 | 066 | 077 | 077 | 077 | 077 | 033 | 033 | 077 | 055 | 077 | 055 | 055 | 066 | 055 | 077 | 066 | 066 | 077 | 066 | 044 | 077 | 055 | males
(cont...) |
| | ANIMAL ID | 00971 | 00972 | 00978 | 00981 | 00982 | 00989 | 00991 | 00993 | 00994 | 00995 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | | + | | | | + | + | | + | + | + | + | | + | + | | + | + | | + | + | |
| Intestine Large, Colon | + | A | + | | + | | | | + | + | | + | + | + | A | | + | + | | + | + | | + | + | |
| Intestine Small, Ileum | + | A | + | | + | | | | + | + | | + | A | + | + | A | | + | + | | + | + | | + | + |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid | | | | | | | | | | | | + | 2 | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | 2 | | | | | | 2 | | | | | | |
| Basophilic Focus | | | | | | | X | | | | | X | | | | | | X | | | | | | | |
| Clear Cell Focus | | | | | | X | X | | | | | | | X | X | | | X | | | | | | X | X |
| Degeneration, Cystic | 2 | | 1 | 2 | | 2 | 2 | | | | | 1 | | | 2 | | 2 | | | | | | 1 | 1 | |
| Hematopoietic Cell Proliferation | | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | X | | | | | | | | | | | | | X | | | | | | X | |
| Infiltration Cellular, Mononuclear Cell | 2 | | 1 | 2 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 2 | 1 | 2 | 1 | | 1 | 1 | 2 | 1 | 2 | 1 | 1 | 1 |
| Mixed Cell Focus | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Tension Lipidosis | | | | | 3 | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | 2 | | 2 | 1 | | | | | 2 | | | 2 | 1 | | | | 2 | 2 | | 2 | | | | 2 | 1 |
| Bile Duct, Hyperplasia | 3 | | 1 | | 2 | | 2 | | | | 1 | 3 | | | | | 1 | | | | | 2 | 1 | | 1 |
| Biliary Tract, Fibrosis | | | | | 1 | 1 | | 1 | | | 2 | | | | | 1 | | | | | | 1 | | | 1 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
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 2 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|
| | 0727 | 0666 | 0552 | 0608 | 0776 | 0777 | 0777 | 0777 | 0332 | 0332 | 0772 | 0578 | 0772 | 0578 | 0554 | 0677 | 0562 | 0768 | 0663 | 0722 | | | 0631 | 0460 |
| | 0097 | 0097 | 0098 | 0098 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Basophilic Focus | | | | | | X | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | 2 | 1 | 2 | 2 | 3 | 2 | 2 | 1 | | 2 | 2 | 2 | | | | | 1 | | 2 | 1 | 2 | 2 | 2 | |
| Lipomatosis | 4 | | | | 4 | | 3 | | | | 3 | | | | | 3 | | 3 | | | | | 4 | |
| Pigmentation | | | | 1 | 2 | 1 | | | | | 1 | | | 1 | | | | | | 2 | | 1 | | |
| Acinar Cell, Hyperplasia | | | | | | | | | | | | | 4 | | | | | | | | | | | |
| Acinus, Degeneration | 4 | 2 | 4 | 3 | 4 | 2 | 3 | 2 | | 4 | 3 | 3 | 2 | | | | 2 | 1 | 2 | 1 | 3 | 3 | 3 | 1 |
| Duct, Dilatation | | | 2 | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | + | + | + | | + | | | + | + | | + | | + | + | + | + | | + | + | | + | + | |
| Inflammation, Chronic Active | | | | | | 3 | | | | | | | | | | | | | | | | | | |
| Ulcer | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | 4 | | | 2 | | | | | | | | | | | | | | | |
| Stomach, Glandular | | + | + | + | | + | | | + | + | | + | | + | + | + | A | | + | + | | + | + | |
| Mineralization | | | | | | | | | | | | | | | | | 3 | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Mineralization | | | | | | | | | | 4 | | | | | | 3 | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Cardiomyopathy | 1 | 3 | 3 | 1 | 2 | 1 | 2 | 2 | 1 | | 4 | 1 | 3 | 1 | 2 | 4 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 1 |
| Mineralization | | | | | | | | | | 4 | | | | | | 3 | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hypertrophy | | 1 | | | | 2 | 2 | | 3 | | | | | 2 | | | | 2 | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 04

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|-------|-------|-------|
| | 0727 | 0666 | 0552 | 0608 | 0776 | 0777 | 0777 | 0777 | 0332 | 0332 | 0772 | 0558 | 0772 | 0558 | 0554 | 0672 | 0556 | 0772 | 0668 | 0663 | | 0772 | 0663 | 0446 | 0772 | 0557 |
| ANIMAL ID | 00971 | 00972 | 00978 | 00981 | 00991 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 | 00999 |
| Metaplasia, Osseous
Vacuolization Cytoplasmic | | 1 | | | | 2 | 2 | 2 | | | | 4 | 1 | | 2 | | 3 | | | | 1 | 2 | | 3 | | |
| Adrenal Medulla
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic
Hyperplasia | 3 | | | | | 3 | | | | | | 1 | | | 1 | | 3 | | | | | | | | | |
| Parathyroid Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + |
| Pituitary Gland
Angiectasis | 2 | | | | | | | | | | 4 | | 1 | | | 3 | | | 2 | | | | 2 | 1 | | 3 |
| Hemorrhage | | | | | | | | 4 | | | | | | | | 4 | | | | | 3 | | 4 | | | |
| Pars Distalis, Cyst | | | X | | | | | | | | | | | | | X | | | | | | | | | | |
| Pars Distalis, Hyperplasia | 2 | | 3 | | | 3 | | | | | | | | | | | 2 | | | 2 | 1 | | 1 | 3 | 3 | |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | 1 | | | | | | | | | 2 | | | | | |
| Rathke's Cleft, Cyst | | | | | | | | | | X | | | | | | | | | | | | | | | | |
| Thyroid Gland
Ultimobranchial Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| C-cell, Hyperplasia | 1 | 1 | | 2 | 2 | 2 | 2 | | | | | 2 | | | 2 | | | | 2 | | 2 | 1 | 1 | | | |
| Follicle, Cyst | | | | | | | | | | | | | X | | | | | | | | | | | | | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | 4 | | | | | | | | | | | | | | | 2 |

GENERAL BODY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 10034 - 04

Test Type: CHRONIC

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|------|
| | 0727 | 0666 | 0552 | 0608 | 0776 | 0777 | 0777 | 0777 | 0332 | 0337 | 0772 | 0558 | 0772 | 0558 | 0554 | 0667 | 0556 | 0772 | 0668 | 0663 | | | 0772 | 0663 | 0446 | 0772 |
| | 0097 | 0097 | 0098 | 0082 | 0099 | 0099 | 0091 | 0031 | 0031 | 0031 | 0031 | 0031 | 0052 | 0052 | 0053 | 0053 | 0055 | 0055 | 0073 | 0073 | 0077 | 0077 | 0091 | 0091 | 0091 | 0099 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|--|--|--|--|--|--|--|---|---|---|---|--|--|--|--|--|--|--|--|--|---|---|---|--|--|--|--|--|--|--|--|--|---|---|---|
| Mineralization
Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 3 | 2 | 3 | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Seminal Vesicle
Atrophy | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | A | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumen, Dilatation | 2 | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Testes | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | 1 | 2 | | | | | | | | | | | 3 | 2 | | | | | | | | | | | 4 | | | | | | | | | | | | | |
| Seminiferous Tubule, Degeneration | 2 | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | 1 | 2 | 1 | | | | | | | | | | | 4 | 1 | 2 | | | | | | | | | | 1 | 1 | 2 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|
| Bone Marrow
Myeloid Cell, Hyperplasia | + | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | |
| Lymph Node
Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | 3 | | | | | | | | | |
| Lymph Node, Mandibular
Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | + | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | 4 | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0727 | 0666 | 0552 | 0668 | 0776 | 0777 | 0777 | 0777 | 0333 | 0333 | 0777 | 0555 | 0777 | 0555 | 0555 | 0666 | 0555 | 0777 | 0666 | 0666 | 0777 | 0666 | 0444 | 0777 | | |
| | 0097 | 0097 | 0098 | 0098 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur
Fibrous Osteodystrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle | + | | | | | | | | | | | | + | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|
| Brain, Brain Stem
Compression | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 3 | | | | | | 3 | | | 3 | | | 2 | | | 2 | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebellum
Hemorrhage | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebrum
Hemorrhage
Ventricle, Dilatation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 2 | | | | | | | | | | | | 1 | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nerve Trigeminal
Axon, Degeneration | | | | | | | | | | | | | + | | | | | | | | | | | | + | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | + | | | | | | | | | | | | + | | | | | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | + | | | | | | | | | | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | + | | | | | | | | | | | | + | | | | | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | + | | | | | | | | | | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | + | | | | | | | | | | | | + | | | | | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | + | | | | | | | | | | | |
| Spinal Cord, Lumbar
Axon, Degeneration | | | | | | | | | | | | | + | | | | | | | | | | | | + | | | | | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | + | | | | | | | | | | | |
| | | | | | | | | | | | | | 2 | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | + | | | | | | | | | | | | 2 | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 4 | |
| | | 0 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 1 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | | | | |
|---|---|--|----|--------|
| Esophagus | + | | 17 | |
| Intestine Large, Colon | + | | 15 | |
| Intestine Small, Ileum | + | | 14 | |
| Intestine Small, Jejunum
Hyperplasia, Lymphoid | | | 1 | 1 2.0 |
| Liver | + | | 26 | |
| Angiectasis | | | | 2 2.0 |
| Basophilic Focus | | | | 3 |
| Clear Cell Focus | | | | 7 |
| Degeneration, Cystic | | | | 10 1.6 |
| Hematopoietic Cell Proliferation | | | | 1 1.0 |
| Hepatodiaphragmatic Nodule | | | | 3 |
| Infiltration Cellular, Mononuclear Cell | | | | 22 1.3 |
| Mixed Cell Focus | | | | 1 |
| Tension Lipidosis | | | | 1 3.0 |
| Vacuolization Cytoplasmic | | | | 11 1.7 |
| Bile Duct, Hyperplasia | | | | 10 1.7 |
| Biliary Tract, Fibrosis | | | | 7 1.1 |
| Hepatocyte, Necrosis | | | | 1 1.0 |
| Oval Cell, Hyperplasia | | | | 1 1.0 |
| Mesentery | | | 1 | |
| Fat, Necrosis | | | | 1 4.0 |

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+ .. Tissue examined microscopically

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| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 4 | |
| | | 0 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 1 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

| | | | | |
|-----------------------------------|---|--|-----------|--------|
| Pancreas | + | | 26 | |
| Basophilic Focus | | | | 1 |
| Infiltration Cellular, Lymphocyte | | | | 18 1.8 |
| Lipomatosis | | | | 7 3.4 |
| Pigmentation | 1 | | | 8 1.3 |
| Acinar Cell, Hyperplasia | | | | 1 4.0 |
| Acinus, Degeneration | | | | 20 2.6 |
| Duct, Dilatation | | | | 1 2.0 |

| | | | | |
|------------------------------|---|--|-----------|-------|
| Stomach, Forestomach | + | | 17 | |
| Inflammation, Chronic Active | | | | 1 3.0 |
| Ulcer | | | | 1 1.0 |
| Epithelium, Hyperplasia | | | | 2 3.0 |

| | | | | |
|--------------------|---|--|-----------|-------|
| Stomach, Glandular | + | | 16 | |
| Mineralization | | | | 1 3.0 |

CARDIOVASCULAR SYSTEM

| | | | | |
|----------------|---|--|-----------|-------|
| Blood Vessel | + | | 26 | |
| Mineralization | | | | 2 3.5 |

| | | | | |
|----------------|---|--|-----------|--------|
| Heart | + | | 26 | |
| Cardiomyopathy | | | | 24 1.8 |
| Mineralization | | | | 2 3.5 |

ENDOCRINE SYSTEM

| | | | | |
|----------------|---|--|-----------|-------|
| Adrenal Cortex | + | | 26 | |
| Hypertrophy | | | | 7 2.0 |

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Experiment Number: 10034 - 04

Test Type: CHRONIC

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | |
|---|-----------------------|----|-----|
| | 0
4
0
0 | | |
| | ANIMAL ID | | |
| | 0
9
1
8
2 | | |
| * TOTALS | | | |
| Metaplasia, Osseous | | 1 | 3.0 |
| Vacuolization Cytoplasmic | | 10 | 2.0 |
| Adrenal Medulla | + | 26 | |
| Hyperplasia | | 5 | 2.2 |
| Islets, Pancreatic | + | 26 | |
| Hyperplasia | | 1 | 2.0 |
| Parathyroid Gland | + | 25 | |
| Hyperplasia | | 7 | 2.1 |
| Pituitary Gland | + | 26 | |
| Angiectasis | | 7 | 3.6 |
| Hemorrhage | | 1 | 4.0 |
| Pars Distalis, Cyst | | 2 | |
| Pars Distalis, Hyperplasia | 2 | 10 | 2.2 |
| Pars Distalis, Hypertrophy | | 2 | 1.5 |
| Rathke's Cleft, Cyst | | 1 | |
| Thyroid Gland | + | 25 | |
| Ultimobranchial Cyst | | 1 | |
| C-cell, Hyperplasia | | 12 | 1.7 |
| Follicle, Cyst | | 1 | |
| Follicular Cell, Hyperplasia | | 2 | 3.0 |

GENERAL BODY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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|---|-------------|---|-----------------|
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RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 4 | |
| | | 0 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 1 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

GENITAL SYSTEM

| | | | |
|-----------------------------------|---|----|--------|
| Coagulating Gland | + | 26 | |
| Fibrosis | | | 1 4.0 |
| Inflammation, Chronic Active | | | 1 2.0 |
| Lumen, Dilatation | | | 1 2.0 |
| Epididymis | + | 26 | |
| Exfoliated Germ Cell | | | 6 1.5 |
| Hypospermia | | | 5 3.8 |
| Infiltration Cellular, Lymphocyte | | | 5 1.2 |
| Preputial Gland | | 4 | |
| Abscess | | | 1 4.0 |
| Hyperkeratosis | | | 1 4.0 |
| Inflammation, Suppurative | | | 2 4.0 |
| Duct, Dilatation | | | 3 3.7 |
| Prostate, Dorsal/lateral Lobe | + | 26 | |
| Cyst, Mucinous | | | 1 |
| Fibrosis | | | 2 3.0 |
| Infiltration Cellular, Lymphocyte | | | 17 1.5 |
| Inflammation, Suppurative | 2 | | 26 1.8 |
| Prostate, Ventral Lobe | + | 26 | |
| Atrophy | | | 2 2.0 |
| Fibrosis | | | 2 3.0 |
| Infiltration Cellular, Lymphocyte | | | 6 1.3 |
| Inflammation, Suppurative | | | 4 1.8 |
| Inflammation, Chronic Active | | | 1 2.0 |

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RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | |
|---|-----------------------|--|--|
| | 0
4
0
0 | | |
| | ANIMAL ID | | |
| | 0
9
1
8
2 | | |

* TOTALS

| | | | |
|-----------------------------------|---|----|-----|
| Mineralization | | 1 | 3.0 |
| Epithelium, Hyperplasia | | 4 | 3.0 |
| Seminal Vesicle | + | 25 | |
| Atrophy | | 1 | 3.0 |
| Edema | | 1 | 4.0 |
| Lumen, Dilatation | | 2 | 2.5 |
| Testes | + | 26 | |
| Polyarteritis | | 6 | 2.3 |
| Seminiferous Tubule, Degeneration | | 17 | 2.1 |

HEMATOPOIETIC SYSTEM

| | | | |
|---|---|----|-----|
| Bone Marrow | + | 26 | |
| Myeloid Cell, Hyperplasia | | 3 | 3.7 |
| Lymph Node | + | 7 | |
| Lumbar, Degeneration, Cystic | | 2 | 3.0 |
| Lumbar, Infiltration Cellular, Plasma Cell | | 2 | 4.0 |
| Mediastinal, Degeneration, Cystic | | 1 | 4.0 |
| Mediastinal, Hemorrhage | | 1 | 4.0 |
| Mediastinal, Hyperplasia, Lymphoid | | 1 | 3.0 |
| Mediastinal, Infiltration Cellular, Plasma Cell | | 1 | 4.0 |
| Renal, Degeneration, Cystic | | 2 | 3.5 |
| Renal, Hemorrhage | | 1 | 3.0 |
| Renal, Infiltration Cellular, Plasma Cell | | 3 | 3.3 |
| Lymph Node, Mandibular | + | 6 | |
| Degeneration, Cystic | | 1 | 4.0 |

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 4 | |
| | | 0 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 1 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

| | | | |
|------------------------------------|--|---|-----|
| Hyperplasia, Lymphoid | | 3 | 3.7 |
| Infiltration Cellular, Plasma Cell | | 4 | 3.5 |

| | | | |
|----------------------------------|---|----|-----|
| Spleen | + | 26 | |
| Hematopoietic Cell Proliferation | | 6 | 2.0 |
| Necrosis | | 1 | 4.0 |
| Pigmentation | | 16 | 1.7 |

| | | | |
|---------|---|----|-----|
| Thymus | + | 24 | |
| Atrophy | | 22 | 3.9 |

INTEGUMENTARY SYSTEM

| | | | |
|------------------------|---|----|-----|
| Mammary Gland | + | 25 | |
| Hyperplasia, Lobular | 2 | 2 | 2.0 |
| Alveolus, Degeneration | | 14 | 3.5 |
| Alveolus, Dilatation | | 4 | 2.3 |
| Duct, Dilatation | | 6 | 2.3 |

| | | | |
|------------------------------------|--|---|-----|
| Skin | | 6 | |
| Cyst Epithelial Inclusion | | 3 | |
| Inflammation, Granulomatous | | 1 | 4.0 |
| Epithelium, Foot, Hyperplasia | | 3 | 4.0 |
| Foot, Edema | | 4 | 3.5 |
| Foot, Fibrosis | | 4 | 4.0 |
| Foot, Inflammation, Chronic Active | | 4 | 4.0 |
| Foot, Necrosis | | 4 | 4.0 |
| Foot, Ulcer | | 4 | 4.0 |

MUSCULOSKELETAL SYSTEM

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+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | | |
|---|-----------------------|----------|-------|
| | 0
4
0
0 | | |
| | ANIMAL ID | | |
| | 0
9
1
8
2 | | |
| | | * TOTALS | |
| Bone | | 1 | |
| Bone, Femur | + | 26 | |
| Fibrous Osteodystrophy | 4 | | 1 4.0 |
| Skeletal Muscle | | 2 | |
| NERVOUS SYSTEM | | | |
| Brain, Brain Stem | + | 26 | |
| Compression | | | 6 2.7 |
| Brain, Cerebellum | + | 26 | |
| Hemorrhage | | | 1 2.0 |
| Brain, Cerebrum | + | 26 | |
| Hemorrhage | | | 1 1.0 |
| Ventricle, Dilatation | | | 2 2.0 |
| Nerve Trigeminal | | 4 | |
| Axon, Degeneration | | | 2 1.5 |
| Peripheral Nerve, Sciatic | | 4 | |
| Peripheral Nerve, Tibial | | 4 | |
| Spinal Cord, Cervical | | 4 | |
| Spinal Cord, Lumbar | | 4 | |
| Axon, Degeneration | | | 3 1.7 |

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+ .. Tissue examined microscopically

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| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 4 | |
| | | 0 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 1 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

Spinal Cord, Thoracic

4

RESPIRATORY SYSTEM

| | | | | |
|--|---|--|----|-----|
| Lung | + | | 19 | |
| Abscess | | | 1 | 4.0 |
| Congestion | | | 1 | 4.0 |
| Foreign Body | | | 2 | |
| Hemorrhage | | | 1 | 4.0 |
| Infiltration Cellular, Histiocyte | | | 4 | 1.0 |
| Inflammation, Granulomatous | | | 1 | 1.0 |
| Inflammation, Chronic | | | 1 | 1.0 |
| Inflammation, Chronic Active | | | 2 | 3.0 |
| Thrombosis | | | 1 | |
| Pleura, Fibrosis | | | 1 | 4.0 |
| Nose | + | | 17 | |
| Autolysis | | | 1 | 4.0 |
| Fibrous Osteodystrophy | 4 | | 1 | 4.0 |
| Hemorrhage | | | 1 | 4.0 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | 3 | 2.7 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | 3 | 2.0 |
| Transitional Epithelium, Accumulation, Hyaline Droplet | | | 1 | 3.0 |
| Upper Molar, Inflammation, Suppurative | | | 1 | 4.0 |
| Trachea | + | | 17 | |
| Peritracheal Tissue, Hemorrhage | | | 1 | 3.0 |

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BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | DAY ON TEST | 0 | |
| | | 4 | |
| | | 0 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 1 | |
| | | 8 | |
| | | 2 | |
| | | | * TOTALS |

Peritracheal Tissue, Inflammation, Chronic Active

1 2.0

SPECIAL SENSES SYSTEM

| | | | |
|--------------------------------------|--|---|-----|
| Ear | | 1 | |
| Eye | | 3 | |
| Retinal Detachment | | 1 | 1 |
| Anterior Chamber, Edema | | 1 | 4.0 |
| Cornea, Bacterium | | 1 | |
| Cornea, Edema | | 1 | 2.0 |
| Cornea, Inflammation, Suppurative | | 1 | 4.0 |
| Cornea, Inflammation, Chronic Active | | 1 | 4.0 |
| Cornea, Ulcer | | 1 | 4.0 |
| Retina, Degeneration | | 2 | 3.5 |
| Zymbal's Gland | | 1 | |

URINARY SYSTEM

| | | | |
|--|---|----|-----|
| Kidney | + | 26 | |
| Accumulation, Hyaline Droplet | 4 | 1 | 4.0 |
| Casts Protein | | 1 | 1.0 |
| Hemorrhage | | 1 | 4.0 |
| Infiltration Cellular, Polymorphonuclear | | 2 | 1.0 |
| Mineralization | | 1 | 4.0 |
| Nephropathy | | 21 | 2.9 |
| Polycystic Kidney | | 1 | 4.0 |
| Cortex, Cyst | | 11 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.05 EE2 M | | DAY ON TEST | | |
|---|--|-------------|--|-----------------|
| | | ANIMAL ID | | |
| | | 0 | | |
| | | 4 | | |
| | | 0 | | |
| | | 0 | | |
| | | 0 | | |
| | | 9 | | |
| | | 1 | | |
| | | 8 | | |
| | | 2 | | |
| | | | | * TOTALS |
| Renal Tubule, Cyst | | | | 14 |
| Transitional Epithelium, Hyperplasia | | | | 2 1.5 |
| Urinary Bladder | | | | 1 |
| Lumen, Dilatation | | | | 1 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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 BLANK .. Not examined microscopically

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0591 | 07271 | 04726 | 07727 | 05759 | 04744 | 07755 | 05722 | 07711 | 04748 | 07799 | 07799 | 07799 | 06760 | 07722 | 07722 | 06778 | 06679 | 07728 | 07727 | 04763 | males
(cont...) |
| | ANIMAL ID | 01091 | 01190 | 01100 | 01101 | 01102 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01555 | 01555 | 01555 | 01555 | 01555 | 01777 | 01777 | 01777 | 01777 | 01999 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | | + | + | | + | + | + | | | | | + | + | | | | + | + | + | | + |
| Intestine Large, Colon | + | | A | | + | + | | A | + | + | | | | + | + | | | | + | + | + | | A |
| Intestine Small, Ileum | + | | A | | + | + | | A | + | + | | | | + | + | | | | A | + | + | | A |
| Liver | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Clear Cell Focus | | | | | | | X | | | | | X | X | | X | X | X | | X | | X | X | |
| Degeneration, Cystic | 2 | | | 2 | | | | 1 | | 1 | | 2 | | 2 | | 1 | 1 | | 1 | 1 | | | |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | X | | | |
| Infiltration Cellular, Mononuclear Cell | | 1 | | 2 | 1 | 1 | 1 | 1 | 1 | 2 | | 1 | | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | |
| Tension Lipidosis | | | | | | | | | | 3 | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | 2 | | 3 | 1 | | | | | | | | 2 | 2 | 1 | 2 | 2 | | 1 | 2 | | 1 | 2 |
| Bile Duct, Hyperplasia | | | | | 1 | | | 1 | 1 | | | | | 2 | | 1 | | 3 | 3 | | | | 1 |
| Biliary Tract, Cyst Multilocular | | | | | | | | | | | | | X | | | | | | | | | | |
| Biliary Tract, Fibrosis | | | | | 1 | | | | 1 | 1 | | | | 2 | | 1 | | 1 | | | | 1 | 1 |
| Oval Cell, Hyperplasia | | | | | 3 | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | + | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Pancreas | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | 2 | | | 3 | 2 | 1 | 1 | 1 | | 3 | | | 1 | 2 | 2 | 2 | 2 | 1 | 2 | | | 1 | |
| Inflammation, Chronic Active | | 2 | | | | | | | | | | | | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------------------|--------|
| | 0591 | 07271 | 04726 | 07727 | 05719 | 04474 | 07725 | 05712 | 07722 | 05711 | 07724 | 05714 | 07729 | 05719 | 07727 | 06760 | 07722 | 06765 | 07728 | 06764 | 06769 | 07728 | 06767 | 07727 | | 04763 |
| ANIMAL ID | 010091 | 011009 | 011000 | 011001 | 011001 | 011001 | 013003 | 013003 | 013003 | 013003 | 013003 | 013003 | 013005 | 013005 | 013005 | 013005 | 013005 | 013005 | 013007 | 013007 | 013007 | 013007 | 013009 | 013009 | 013009 | 013009 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lipomatosis | | 3 | | | 3 | | | | | | | 4 | 3 | | | | 2 | | | 3 | | | 3 | | |
| Pigmentation | 2 | 1 | | 2 | 1 | 2 | 1 | 1 | | 2 | | | 1 | 1 | 1 | 1 | 1 | | | | 1 | | | | |
| Acinar Cell, Hyperplasia | | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Acinus, Degeneration | 3 | 4 | | 4 | 3 | 2 | 2 | 4 | | 4 | | 4 | 3 | 3 | 3 | 2 | 3 | 1 | 4 | 2 | 4 | | | 1 | 2 |
| Stomach, Forestomach | + | | A | | | + | + | | | + | + | + | | | + | + | + | | | + | + | + | + | | + |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | X | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | 4 | | | | | | | | | | | | | |
| Stomach, Glandular | + | | A | | | + | + | | | A | + | + | | | | + | + | | | | + | + | + | | + |
| Inflammation, Chronic Active | | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Ulcer | | | | | | | | | | | 4 | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 1 | 4 | 4 | 4 | 4 | 1 | 2 | 3 | 2 | 2 | | | 3 | 2 | 1 | 3 | 3 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 4 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | X |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | X | | | | |
| Degeneration, Cystic | | | | | | | | | 4 | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | 1 | | | 2 | 3 | 1 | 1 | | |
| Hypertrophy | | | | | | | | | | | | | | 2 | 2 | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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 X .. Lesion present
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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0591 | 0727 | 0472 | 0772 | 0579 | 0474 | 0775 | 0572 | 0771 | 0474 | 0778 | 0579 | 0779 | 0477 | 0776 | 0572 | 0772 | 0478 | 0778 | 0674 | 0679 | 0778 | 0772 | 0473 | 0776 | 0473 | males
(cont...) |
| | ANIMAL ID | 01091 | 01090 | 01001 | 01011 | 01011 | 01033 | 01033 | 01033 | 01033 | 01033 | 01033 | 01055 | 01055 | 01055 | 01055 | 01055 | 01055 | 01077 | 01077 | 01077 | 01077 | 01099 | 01099 | 01099 | 01099 | 01099 | |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Coagulating Gland Atrophy | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Ductus Deferens Granuloma Sperm | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epididymis Exfoliated Germ Cell | 1 | | | 2 | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Epididymis Hypospermia | | | | 4 | 4 | | | | | 4 | | | 4 | | | | | | | 4 | 4 | | | 4 | 4 | | | |
| Epididymis Infiltration Cellular, Lymphocyte | 1 | | | 2 | 1 | | | | | 2 | | | 1 | 1 | | | | | 1 | 1 | | | 1 | | | | | 1 |
| Preputial Gland Abscess | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preputial Gland Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preputial Gland Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Preputial Gland Inflammation, Suppurative | | | | 4 | 4 | | 4 | | | | | | | | | | | | | | | | | | | 4 | 4 | |
| Preputial Gland Duct, Dilatation | | | | 4 | 3 | | 4 | | | | | | | | | 4 | | | | | | | | | 4 | 4 | | |
| Prostate, Dorsal/lateral Lobe Cyst, Mucinous | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Prostate, Dorsal/lateral Lobe Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Dorsal/lateral Lobe Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Dorsal/lateral Lobe Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Ventral Lobe Fibrosis | 2 | | | 2 | | | | | | 4 | | | 2 | | | | | | | | | | | | | | | |
| Prostate, Ventral Lobe Infiltration Cellular, Lymphocyte | 2 | | | 2 | 1 | | 1 | | | 4 | | | 2 | 1 | 1 | | | | | | | | | | | | | |
| Prostate, Ventral Lobe Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue
X .. Lesion present A .. Autolysis precludes evaluation
I .. Insufficient tissue BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|--------------------|------------------|------------------|------------------|
| | 0
5
9
1 | 0
7
2
7 | 0
4
7
1 | 0
7
2
6 | 0
7
2
7 | 0
5
1
9 | 0
4
1
4 | 0
7
2
5 | 0
5
1
2 | 0
7
4
1 | 0
4
7
4 | 0
7
2
8 | 0
7
2
9 | 0
7
2
9 | 0
6
4
0 | 0
7
2
6 | 0
7
2
5 | 0
7
2
8 | 0
6
7
4 | 0
6
0
9 | | | 0
7
2
8 | 0
7
2
7 | 0
4
2
6 |
| | 0
1 | 0
1 | 0
1 | 0
1 | 0
1 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
3 | 0
5 | 0
5 | 0
5 | 0
5 | 0
5 | 0
5 | 0
7 | 0
7 | 0
7 | 0
7 | 0
9 | 0
9 | 0
9 | |
| | 0
0 | 0
0 | 0
1 | 0
1 | 0
1 | 0
2 | 0
2 | 0
2 | 0
2 | 0
2 | 0
4 | 0
4 | 0
4 | 0
4 | 0
4 | 0
3 | 0
3 | 0
4 | 0
4 | 0
4 | 0
4 | 0
1 | 0
2 | 0
5 | 0
6 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lymph Node, Mesenteric | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Hematopoietic Cell Proliferation | | 3 | | 2 | | | | 1 | | | | 2 | | | | | | | | 2 | 1 | | | 1 | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | 2 | | | | | | | | | | | |
| Pigmentation | 1 | 2 | | | 2 | 4 | | 1 | 2 | | | | | 2 | 2 | | | 2 | 2 | 2 | | 1 | 1 | 2 | 2 | 1 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | 3 | | | | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | | |
| Atrophy | 4 | 4 | 3 | 4 | 4 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | X | | |
| Inflammation, Granulomatous | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Alveolus, Degeneration | 3 | | | 4 | 4 | | | 3 | 4 | 4 | | 4 | 4 | 3 | 4 | | | | 3 | 4 | 2 | 4 | 4 | 2 |
| Alveolus, Dilatation | | | | | | | | | | | | | | | | | | | | | 2 | | | |
| Duct, Dilatation | | | | | | 2 | | | | | | | | | | | | | | | 2 | | | |
| Skin | | + | | + | + | | | + | | | | + | | | | | | | | | + | | + | |
| Cyst Epithelial Inclusion | | | | | X | | | X | | | | | | | | | | | | | | | | |
| Epithelium, Foot, Hyperplasia | | | | | 4 | | | | | | | | | | | | | | | | | | | |
| Foot, Fibrosis | | | | | 4 | | | | | | | 4 | | | | | | | | | | | | |
| Foot, Inflammation, Chronic Active | | | | | 4 | | | | | | | 4 | | | | | | | | | | | | |
| Foot, Necrosis | | | | | 4 | | | | | | | | | | | | | | | | | | | |
| Foot, Ulcer | | | | | 4 | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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 2) Mild 4) Marked

Experiment Number: 10034 - 04
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|--------------------|
| | 0591 | 07271 | 04726 | 07727 | 05759 | 04744 | 07755 | 05722 | 07751 | 04748 | 07729 | 05779 | 04778 | 07729 | 05770 | 04764 | 07725 | 05788 | 04764 | 07709 | 05788 | 04728 | 07708 | 05722 | | |
| | 010 | 011 | 011 | 011 | 011 | 013 | 013 | 013 | 013 | 013 | 013 | 015 | 015 | 015 | 015 | 015 | 015 | 017 | 017 | 017 | 017 | 017 | 017 | 019 | 019 | |
| | 0091 | 0090 | 0011 | 0011 | 0011 | 0022 | 0022 | 0022 | 0022 | 0022 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0033 | 0033 | 0011 | 0011 | 0022 | 0022 | 0055 | 0055 | 0066 | |

Bone
Tarsal, Hyperostosis

+
4

Bone, Femur

+ +

NERVOUS SYSTEM

Brain, Brain Stem
Compression
Gliosis
Necrosis

+
 3 3 2 2
 4 1

Brain, Cerebellum

+ +

Brain, Cerebrum
Ventricle, Dilatation

+
 2 2 2 1

Nerve Trigeminal
Axon, Degeneration

+ A +
 1 1 1

Peripheral Nerve, Sciatic

+ A +
 1 1 1

Peripheral Nerve, Tibial

+ A +
 1 1 1

Spinal Cord, Cervical

+ A +
 1 1 1

Spinal Cord, Lumbar
Axon, Degeneration

+ A +
 2 2 2

Spinal Cord, Thoracic

+ A +
 1 1 1

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|--------------------|-------|-------|-------|-------|-------|
| | 0591 | 07271 | 04726 | 07727 | 05759 | 04744 | 07755 | 05722 | 07751 | 04724 | 07778 | 05799 | 04789 | 07770 | 05766 | 07722 | 04788 | 07774 | 05766 | 07709 | | | 04788 | 07722 | 05799 | 04799 | 07722 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|--|---|---|---|---|---|---|---|--|--|---|---|---|--|--|--|---|---|---|--|--|--|--|---|---|
| Lung | + | A | | + | + | | + | + | + | | | | + | + | | | | | + | + | + | | | | | + | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Infiltration Cellular, Histiocyte | 4 | | | | | | 2 | | 3 | 2 | | | | 1 | | | | | 2 | 1 | | | | | | | |
| Alveolar Epithelium, Hyperplasia | 4 | | | | | | 3 | | | | | | | | | | | | | | | | | | | | |
| Nose | + | A | | + | + | | | + | + | + | | | | + | + | | | | A | + | + | | | | | + | |
| Autolysis | | | | | | | | 4 | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 2 | | | | | | | | 2 | | | | | 3 | 4 | | | | | 4 | 2 | | | | | | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 | | | | | 2 | | | | | | | | | | | | | | 2 | | | | | | | |
| Respiratory Epithelium, Hyperplasia | | | | | | 2 | | | | | | | | | | | | | | | | | | | | | |
| Trachea | + | A | | + | + | | | + | + | + | | | | + | + | | | | A | + | + | | | | | + | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|---|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rupture | | + | | | | | | | | | | | | + | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | 1 | | | | | 2 | | | | | | 1 | 1 | | | | | 2 | |
| Mineralization | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | |

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 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0 | |
| | | 5 | |
| | | 6 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 6 | |
| | | 2 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | | | | | |
|---|---|---|--|--|--------|
| Esophagus | + | | | | 14 |
| Intestine Large, Colon | + | | | | 11 |
| Intestine Small, Ileum | + | | | | 10 |
| Liver | + | | | | 25 |
| Angiectasis | | 4 | | | 2 3.0 |
| Clear Cell Focus | | | | | 9 |
| Degeneration, Cystic | | | | | 10 1.4 |
| Fatty Change | | 4 | | | 1 4.0 |
| Hepatodiaphragmatic Nodule | | | | | 1 |
| Infiltration Cellular, Mononuclear Cell | | 2 | | | 20 1.4 |
| Mixed Cell Focus | | | | | 1 |
| Tension Lipidosis | | | | | 2 2.5 |
| Vacuolization Cytoplasmic | | | | | 12 1.8 |
| Bile Duct, Hyperplasia | | | | | 8 1.6 |
| Biliary Tract, Cyst Multilocular | | | | | 1 |
| Biliary Tract, Fibrosis | | | | | 8 1.1 |
| Oval Cell, Hyperplasia | | | | | 1 3.0 |
| Mesentery | | | | | 1 |
| Fat, Necrosis | | | | | 1 4.0 |
| Pancreas | + | | | | 25 |
| Basophilic Focus | | | | | 1 |
| Infiltration Cellular, Lymphocyte | | 2 | | | 16 1.8 |
| Inflammation, Chronic Active | | | | | 2 2.0 |

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 + .. Tissue examined microscopically M .. Missing tissue
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 I .. Insufficient tissue BLANK .. Not examined microscopically

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 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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Time Report Requested: 10:21:03

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | |
|---|-------------|--|-----------------|
| | ANIMAL ID | | |
| | 0 | | |
| | 5 | | |
| | 6 | | |
| | 0 | | |
| | 0 | | |
| | 9 | | |
| | 2 | | |
| | 6 | | |
| | 2 | | |
| | | | * TOTALS |
| Lipomatosis | | | 7 3.0 |
| Pigmentation | 1 | | 15 1.3 |
| Acinar Cell, Hyperplasia | | | 1 3.0 |
| Acinus, Degeneration | 3 | | 21 2.9 |
| | | | <hr/> |
| Stomach, Forestomach | + | | 15 |
| Cyst Epithelial Inclusion | | | 1 |
| Epithelium, Hyperplasia | | | 1 4.0 |
| | | | <hr/> |
| Stomach, Glandular | + | | 12 |
| Inflammation, Chronic Active | | | 1 4.0 |
| Necrosis | | | 1 4.0 |
| Ulcer | | | 1 4.0 |
| | | | <hr/> |
| CARDIOVASCULAR SYSTEM | | | |
| | | | <hr/> |
| Blood Vessel | + | | 26 |
| | | | <hr/> |
| Heart | + | | 26 |
| Cardiomyopathy | 2 | | 24 2.4 |
| Metaplasia, Osseous | | | 2 3.0 |
| Thrombosis | | | 1 |
| | | | <hr/> |
| ENDOCRINE SYSTEM | | | |
| | | | <hr/> |
| Adrenal Cortex | + | | 26 |
| Accessory Adrenal Cortical Nodule | | | 1 |
| Degeneration, Cystic | | | 1 4.0 |
| Hyperplasia | | | 5 1.6 |
| Hypertrophy | | | 2 2.0 |

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | | |
|---|-------------|--|-----------------|
| | ANIMAL ID | | |
| | 0 | | |
| | 5 | | |
| | 6 | | |
| | 0 | | |
| | 0 | | |
| | 9 | | |
| | 2 | | |
| | 6 | | |
| | 2 | | |
| | | | * TOTALS |
| Vacuolization Cytoplasmic | | | 11 1.9 |
| Adrenal Medulla | + | | 26 |
| Hyperplasia | 1 | | 6 1.3 |
| Islets, Pancreatic | + | | 26 |
| Parathyroid Gland | + | | 25 |
| Hyperplasia | 1 | | 11 2.2 |
| Pituitary Gland | + | | 26 |
| Angiectasis | 4 | | 3 4.0 |
| Inflammation, Chronic | | | 1 4.0 |
| Thrombosis | | | 1 |
| Pars Distalis, Cyst | | | 4 |
| Pars Distalis, Hyperplasia | | | 13 2.0 |
| Pars Distalis, Hypertrophy | | | 2 2.0 |
| Pars Intermedia, Hyperplasia | | | 1 3.0 |
| Thyroid Gland | + | | 25 |
| Ultimobranchial Cyst | | | 3 |
| C-cell, Hyperplasia | | | 7 1.4 |
| Follicular Cell, Hyperplasia | | | 3 2.7 |

GENERAL BODY SYSTEM

| | | | |
|------------|--|--|-------|
| Tissue NOS | | | 1 |
| Hemorrhage | | | 1 4.0 |
| Thrombosis | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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 Lab: NCTR

| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0 | |
| | | 5 | |
| | | 6 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 6 | |
| | | 2 | |
| | | | * TOTALS |

GENITAL SYSTEM

| | | | | | |
|------------------------------------|---|--|-----------|-----------|------------|
| Coagulating Gland
Atrophy | + | | 25 | | |
| | | | | 1 | 3.0 |
| Ductus Deferens
Granuloma Sperm | | | 1 | 1 | 4.0 |
| Epididymis | + | | 26 | | |
| Exfoliated Germ Cell | | | | 4 | 1.3 |
| Hypospermia | 4 | | | 10 | 4.0 |
| Infiltration Cellular, Lymphocyte | | | | 10 | 1.2 |
| Preputial Gland | | | 6 | | |
| Abscess | | | | 1 | 4.0 |
| Fibrosis | | | | 1 | 4.0 |
| Hyperkeratosis | | | | 1 | 4.0 |
| Inflammation, Suppurative | | | | 5 | 4.0 |
| Duct, Dilatation | | | | 6 | 3.8 |
| Prostate, Dorsal/lateral Lobe | + | | 25 | | |
| Cyst, Mucinous | | | | 1 | |
| Fibrosis | | | | 2 | 3.5 |
| Infiltration Cellular, Lymphocyte | | | | 13 | 1.7 |
| Inflammation, Suppurative | 2 | | | 22 | 2.0 |
| Prostate, Ventral Lobe | + | | 26 | | |
| Fibrosis | | | | 6 | 2.3 |
| Infiltration Cellular, Lymphocyte | | | | 14 | 1.7 |
| Inflammation, Suppurative | 1 | | | 8 | 1.6 |

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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | | DAY ON TEST | | |
|---|---|-------------|----|-----------------|
| | | ANIMAL ID | | |
| | | 0 | | |
| | | 5 | | |
| | | 6 | | |
| | | 0 | | |
| | | 0 | | |
| | | 9 | | |
| | | 2 | | |
| | | 6 | | |
| | | 2 | | |
| | | | | * TOTALS |
| Inflammation, Chronic Active | | | 1 | 2.0 |
| Mineralization | | | 3 | 3.0 |
| Epithelium, Hyperplasia | | | 7 | 2.1 |
| Seminal Vesicle | + | | 23 | |
| Atrophy | | | 1 | 4.0 |
| Epithelium, Hyperplasia | | 2 | 2 | 2.5 |
| Lumen, Dilatation | | | 1 | 4.0 |
| Testes | + | | 26 | |
| Polyarteritis | | | 5 | 2.2 |
| Seminiferous Tubule, Degeneration | | 4 | 21 | 2.6 |
| HEMATOPOIETIC SYSTEM | | | | |
| Bone Marrow | + | | 25 | |
| Hypocellularity | | | 1 | 3.0 |
| Myeloid Cell, Hyperplasia | | | 2 | 3.5 |
| Lymph Node | + | | 6 | |
| Lumbar, Degeneration, Cystic | | | 3 | 3.3 |
| Lumbar, Hyperplasia, Lymphoid | | | 1 | 3.0 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | 1 | 4.0 |
| Renal, Degeneration, Cystic | | 3 | 3 | 3.7 |
| Renal, Hemorrhage | | | 1 | 4.0 |
| Lymph Node, Mandibular | | | 7 | |
| Degeneration, Cystic | | | 3 | 2.7 |
| Hyperplasia, Lymphoid | | | 5 | 3.4 |
| Infiltration Cellular, Plasma Cell | | | 6 | 4.0 |

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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|--|-------------|-----------------------|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0
5
6
0 | |
| | ANIMAL ID | 0
9
2
6
2 | |
| | | | * TOTALS |

| | | | | |
|----------------------|---|--|----|-------|
| Bone | | | | |
| Tarsal, Hyperostosis | | | 1 | 1 4.0 |
| Bone, Femur | + | | 26 | |

NERVOUS SYSTEM

| | | | | |
|---------------------------|---|--|----|-------|
| Brain, Brain Stem | + | | 26 | |
| Compression | 2 | | | 4 3.0 |
| Gliosis | | | | 1 2.0 |
| Necrosis | | | | 1 2.0 |
| Brain, Cerebellum | + | | 26 | |
| Brain, Cerebrum | + | | 26 | |
| Ventricle, Dilatation | | | | 4 1.8 |
| Nerve Trigeminal | | | 3 | |
| Axon, Degeneration | | | | 3 1.0 |
| Peripheral Nerve, Sciatic | | | 3 | |
| Peripheral Nerve, Tibial | | | 3 | |
| Spinal Cord, Cervical | | | 3 | |
| Spinal Cord, Lumbar | | | 3 | |
| Axon, Degeneration | | | | 2 2.0 |
| Spinal Cord, Thoracic | | | 3 | |

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 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | DAY ON TEST | 0 | |
| | | 5 | |
| | | 6 | |
| | | 0 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 6 | |
| | | 2 | |
| | | | * TOTALS |

RESPIRATORY SYSTEM

| | | | | |
|---|---|--|-----------|--------------|
| Lung | + | | 13 | |
| Congestion | | | | 1 4.0 |
| Infiltration Cellular, Histiocyte | | | | 7 2.1 |
| Alveolar Epithelium, Hyperplasia | | | | 2 3.5 |
| Nose | + | | 12 | |
| Autolysis | | | | 1 4.0 |
| Inflammation, Suppurative | | | | 1 2.0 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | 6 2.8 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | 3 2.0 |
| Respiratory Epithelium, Hyperplasia | | | | 1 2.0 |
| Trachea | + | | 12 | |

SPECIAL SENSES SYSTEM

| | | | | |
|----------------|--|--|----------|----------|
| Eye | | | 2 | |
| Rupture | | | | 1 |
| Zymbal's Gland | | | 1 | |

URINARY SYSTEM

| | | | | |
|--|---|--|-----------|--------------|
| Kidney | + | | 26 | |
| Infiltration Cellular, Polymorphonuclear | | | | 5 1.4 |
| Mineralization | | | | 1 1.0 |

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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 0.50 EE2 M | | DAY ON TEST | ANIMAL ID | | |
|---|--|-------------|-----------|-----------------|-----|
| | | 0 | | | |
| | | 5 | | | |
| | | 6 | | | |
| | | 0 | | | |
| | | 0 | | | |
| | | 9 | | | |
| | | 2 | | | |
| | | 6 | | | |
| | | 2 | | | |
| | | | | * TOTALS | |
| Nephropathy | | 3 | | 23 | 2.6 |
| Cortex, Cyst | | X | | 8 | |
| Renal Tubule, Cyst | | | | 10 | |
| Transitional Epithelium, Hyperplasia | | | | 1 | 3.0 |

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Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
6
7
6 | 0
6
7
6 | 0
7
2
7 | 0
7
2
7 | 0
7
2
7 | 0
6
9
8 | 0
7
2
7 | 0
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9 | 0
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4 | 0
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5 | 0
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5 | 0
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7 | 0
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8 | 0
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1 | 0
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2 | 0
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9 | 0
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1 | 0
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1 | 0
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2 | 0
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3 | 0
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3 | 0
5
5
5
4 | 0
5
5
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1 | 0
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5
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4 | 0
5
5
5
2 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Esophagus | + | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Cecum Dilatation | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon Dilatation | + + + A + + A + A A + A A A + A + | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Ileum Dilatation | + + A + + A + A A + A A A + A + | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | |
| Liver | + | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | X | | | | | | | | | | | | | | | | | | | |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | 1 2 2 2 1 3 1 2 1 2 2 2 2 2 2 1 | | | | | | | | | | | | | | | | | | | |
| Fatty Change | 2 | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | X X | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Mononuclear Cell | 1 2 1 2 2 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | 3 | | | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | X X | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | 2 2 2 2 1 2 1 1 2 2 | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| | 0676 | 0677 | 0678 | 0679 | 0680 | 0681 | 0682 | 0683 | 0684 | 0685 | 0686 | 0687 | 0688 | 0689 | 0690 | 0691 | 0692 | 0693 | 0694 | 0695 | 0696 | 0697 | 0698 | 0699 | |
| ANIMAL ID | 01211 | 01111 | 01111 | 01111 | 01111 | 01111 | 01111 | 01111 | 01111 | 01111 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | 01333 | |

Epithelium, Hyperplasia

Stomach, Glandular

Cyst

Hemorrhage

Infiltration Cellular, Polymorphonuclear

Mineralization

Ulcer

Epithelium, Hyperplasia

CARDIOVASCULAR SYSTEM

Blood Vessel

Mineralization

Heart

Cardiomyopathy

Inflammation, Chronic

Metaplasia, Osseous

Mineralization

ENDOCRINE SYSTEM

Adrenal Cortex

Atrophy

Degeneration, Cystic

Hyperplasia

Hypertrophy

Vacuolization Cytoplasmic

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|--|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | | |
| | | 6 | 6 | 7 | 7 | 7 | 6 | 7 | 6 | 5 | 6 | 6 | 7 | 6 | 4 | 7 | 7 | 7 | 5 | 5 | 7 | | 6 | 6 | 6 | 7 |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 7 | 7 | 2 | 2 | 2 | 9 | 2 | 1 | 5 | 4 | 2 | 2 | 2 | 4 | 2 | 2 | 2 | 5 | 7 | 0 | 0 | 9 | 6 | 2 | 9 |
| | | 6 | 6 | 7 | 7 | 7 | 8 | 7 | 1 | 5 | 7 | 2 | 7 | 4 | 9 | 8 | 8 | 9 | 6 | 5 | 6 | 0 | 0 | 8 | 4 | 6 |
| | F1 Veh. StDose M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 |
| | 1 | 1 | 2 | 2 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 3 | 3 | 4 | 4 | 5 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Coagulating Gland | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | A | + | + | + | + | + | + | + | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | |
| Exfoliated Germ Cell | 2 | 1 | | | | | | | | | 3 | 2 | 1 | | | | | | | | 1 | | | | | 2 | |
| Hypospermia | | | | | 4 | 4 | 4 | 4 | | 4 | | | | | | | | | | | | | | | 4 | 4 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | 1 | | 1 | 1 | 2 | 1 | 1 | | | | | | | | | 2 | |
| Polyarteritis | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Preputial Gland | | + | + | | + | | | | | | | | | + | | | | | | + | + | | | | | + | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | 4 | | | | | | | | | | | | | | | | | | | | 4 | |
| Inflammation, Suppurative | | | 4 | 4 | | 4 | | | | | | | | | | | | | | 4 | 4 | | | | | 4 | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | | | 4 | 4 | | 4 | | | | | | | | 3 | | | | | | 3 | 4 | | | | | 4 | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | | |
| Cyst, Mucinous | | | | | | | X | | | | | | | | | | X | | | | X | | | | | | |
| Fibrosis | 3 | | | | | | 2 | | | 2 | 2 | 2 | 3 | | 2 | 1 | | | | | | | | 3 | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0676 | 0677 | 0672 | 0677 | 0677 | 0676 | 0677 | 0676 | 0675 | 0676 | 0676 | 0677 | 0676 | 0674 | 0677 | 0677 | 0677 | 0675 | 0675 | 0677 | 0676 | 0676 | 0677 | 0676 | | |
| Bone Marrow | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | | |
| Myeloid Cell, Hyperplasia | | | | | 3 | | | | 4 | | | | | | | | | | | | | | | | | |
| Lymph Node | | + | | | + | | | + | | | + | + | | | | | | | | + | | + | | + | | |
| Axillary, Hyperplasia, Lymphoid | | | | | 4 | | | | | | | | | | | | | | | | | | | 4 | | |
| Axillary, Infiltration Cellular, Plasma Cell | | | | | 4 | | | | | | | | | | | | | | | | | | | 4 | | |
| Lumbar, Degeneration, Cystic | | | | | | | | 4 | | | | 3 | | | | | | | | | | | | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | 2 | | | | | | | | 3 | | 4 | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 4 | | 4 | | | | |
| Renal, Degeneration, Cystic | | | 4 | | | | | | | | | 4 | 3 | | | | | | | | | | | | | |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Hyperplasia, Lymphoid | | | 3 | | | | | | | | | 3 | | | | | | | | | | 4 | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 4 | | | | |
| Lymph Node, Mandibular | | | | | | A | | | | | | + | | | | | | | | | + | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | 4 | | | | | | | | | 4 | | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | | |
| Hematopoietic Cell Proliferation | 4 | 3 | | 2 | 2 | | 1 | 4 | | 1 | 4 | | | | | | | | | 2 | | 1 | | 2 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | 2 | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | 2 | 1 | 1 | 2 | 3 | | | | | 1 | 1 | | | | | 2 | 2 | | | 1 | 4 | | 3 | | | |
| Polyarteritis | | | | | | | | | | | | | | | | 1 | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | 0681 | 0727 | 0644 | 0722 | 0771 | 0771 | 0663 | 0557 | 0669 | 0669 | 0004 | 0762 | 0662 | 0772 | 0772 | 0488 | 0727 | 0369 | 0667 | 0553 | 0725 | 0519 | 0542 | * TOTALS |
| | ANIMAL ID | 05552 | 05561 | 05562 | 05571 | 05572 | 05574 | 05575 | 05577 | 05579 | 05580 | 05581 | 05582 | 05587 | 05588 | 05591 | 05592 | 05593 | 05594 | 05595 | 05596 | 05597 | 05598 | 05599 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|-------|-------|
| Esophagus | + | + | | + | + | + | + | + | + | | + | + | | + | + | + | + | + | + | + | + | + | + | 32 | | | |
| Intestine Large, Cecum Dilatation | | | | | | | | | | | | | | | | | | | + | 4 | | | | 1 | 1 4.0 | | |
| Intestine Large, Colon Dilatation | + | + | | + | + | + | + | + | A | | A | + | | + | | | | + | 3 | + | A | + | A | A | 21 | 1 3.0 | |
| Intestine Small, Ileum Dilatation | + | + | | + | + | + | + | + | A | | A | + | | + | | | | + | 2 | + | + | A | + | A | A | 20 | 1 2.0 |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | | | + | | 1 | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Angiectasis | | | | | | | | | | | | 2 | | | | | | | | | | | | | 3 | 2.7 | |
| Basophilic Focus | X | | | | X | | | | | | | | X | | X | | | | X | | | X | | | 9 | | |
| Clear Cell Focus | | | | | | | | | | | | X | | | X | X | | | | | | | | | 7 | | |
| Degeneration, Cystic | 1 | 2 | | 2 | | 1 | | 1 | 1 | 1 | | 2 | 2 | | 1 | | | | | 2 | 1 | 1 | | | 28 | 1.6 | |
| Fatty Change | 3 | | | | | | | 2 | | | | | | 1 | | | | | | | | 2 | | | 5 | 2.0 | |
| Hematopoietic Cell Proliferation | | | | | | | | 2 | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Hemorrhage | | | | | | | | | | | | | 2 | | | | | | | | | | | | 1 | 2.0 | |
| Hepatodiaphragmatic Nodule | | | | | X | | | | | | | | | | | | | | | | | | | | 3 | | |
| Infiltration Cellular, Mononuclear Cell | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 2 | 2 | | 2 | | 1 | 1 | | 1 | 2 | | | | 1 | 2 | 1 | | 34 | 1.4 | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Pigmentation | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Tension Lipidosis | | | | | | | | | | | | | | 1 | | | | | | 4 | | | | | 2 | 2.5 | |
| Vacuolization Cytoplasmic | | | | | | | | 1 | | | | | | 2 | | 3 | 2 | | | | | | | | 14 | 1.8 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|----|-----|
| | 0681 | 0727 | 0644 | 0728 | 0779 | 0775 | 0677 | 0667 | 0559 | 0667 | 0003 | 0704 | 0662 | 0722 | 0772 | 0484 | 0722 | 0397 | 0662 | 0553 | | 0725 | 0571 | 0554 | 0552 | | |
| ANIMAL ID | 05552 | 05551 | 05562 | 05571 | 05572 | 05577 | 05574 | 05545 | 05555 | 05555 | 05511 | 05512 | 05577 | 05577 | 05599 | 05599 | 05599 | 05599 | 05599 | 05599 | 05599 | 05599 | 05599 | 05599 | 05599 | | |
| Bile Duct, Hyperplasia | | 2 | 1 | 1 | | | | | | | 1 | | | | 1 | | | | | | | | | | | 19 | 1.5 |
| Biliary Tract, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Biliary Tract, Fibrosis | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 1 | | 1 | | 1 | | | 2 | | | | 1 | 2 | | 1 | | | | 24 | 1.4 |
| Capsule, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Oval Cell, Hyperplasia | | | | | | | | 1 | | | | | | | | | | | | | | | | | | 3 | 1.7 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | |
| Basophilic Focus | | | | | | | | | | | | X | | | | | | | | | | | | | | 1 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Infiltration Cellular, Lymphocyte | 1 | 2 | 3 | 2 | 2 | 2 | 2 | | 2 | | | 3 | 2 | 1 | 3 | 2 | 1 | 2 | 1 | | 3 | 1 | | 2 | | 37 | 1.9 |
| Lipomatosis | | | | 2 | | 3 | | 3 | | | | 2 | | | | 3 | | 4 | | | 2 | | | | | 13 | 2.8 |
| Pigmentation | | 1 | 2 | | | 1 | | | 1 | 1 | | 2 | 1 | | 2 | | 1 | | 1 | | 1 | | | | | 23 | 1.1 |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 1 | 4.0 |
| Acinar Cell, Hyperplasia | | | | | | | | | | | | | | | | 3 | | | | | | | 4 | | | 2 | 3.5 |
| Acinus, Degeneration | 2 | 4 | 3 | 3 | 3 | 3 | 3 | | 4 | | | 3 | 2 | 1 | 3 | 3 | 2 | 3 | 1 | | 3 | 2 | 1 | | 4 | 41 | 2.6 |
| Artery, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Artery, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Stomach, Forestomach | + | | | | | + | + | + | + | + | + | | + | + | | | + | | + | + | + | + | | + | + | 31 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
| | 0681 | 0727 | 0644 | 0728 | 0779 | 0775 | 0667 | 0667 | 0559 | 0666 | 0003 | 0704 | 0662 | 0722 | 0772 | 0484 | 0722 | 0397 | 0662 | 0553 | | 0725 | 0571 | 0554 |
| ANIMAL ID | 05552 | 05551 | 05562 | 05571 | 05572 | 05574 | 05574 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | 05575 | |
| Epithelium, Hyperplasia | | | 4 | | | | | | | | | | 4 | | | | | | | | | | | 2 4.0 |
| Stomach, Glandular Cyst | + | + | + | | | + | + | + | + | + | A | | + | + | | | + | | + | + | + | + | A | 30 1 |
| Hemorrhage | | X | | | | | | | | | | | 2 | | | | | | | | | | | 1 2.0 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | 3 | | | | | | | | | | | 1 3.0 |
| Mineralization | | | | | | | | | | | | 4 | | 2 | | | | | | 4 | | | | 7 3.4 |
| Ulcer | | | | | | | | | | | | 3 | | | | | | | | | | | | 1 3.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | 4 | | | | | | | | | | | | 2 4.0 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|
| Blood Vessel Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 8 3.9 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 45 2.3 |
| Cardiomyopathy | 2 | 2 | 1 | 2 | 2 | 2 | | 2 | 2 | 3 | 2 | 2 | 3 | 1 | 1 | 2 | | 2 | 1 | 2 | 4 | 1 | 4 | 3 1 2.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Mineralization | | | | | | | | | | | | 4 | | 4 | | | | | | 3 | | 3 | | 9 3.4 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|
| Adrenal Cortex Atrophy | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 47 1 4.0 |
| Degeneration, Cystic | | | | | | | | 1 | | | | | | | | | | | | | | | | 3 2.3 |
| Hyperplasia | | | | | | | 1 | | | | | 2 | | | 1 | | | | | | | | | 5 1.2 |
| Hypertrophy | | 1 | | | | | | | | | | | | | | | | | | | 4 | | | 2 2.5 |
| Vacuolization Cytoplasmic | | | | | | | | | 2 | | 3 | | 2 | 2 | 1 | | | 2 | 2 | | 1 | 3 | 1 | 21 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

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Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|-------|--------|
| | 0681 | 0727 | 0644 | 0728 | 0779 | 0775 | 0667 | 0663 | 0559 | 0666 | 0003 | 0704 | 0662 | 0722 | 0772 | 0484 | 0722 | 0397 | 0667 | 0553 | | 0725 | 0519 | 0554 | |
| ANIMAL ID | 0555 | 0555 | 0556 | 0557 | 0557 | 0774 | 0774 | 0775 | 0775 | 0775 | 0775 | 0775 | 0775 | 0775 | 0775 | 0993 | 0993 | 0993 | 0993 | 0993 | 0993 | 0993 | 0993 | 0993 | |
| Adrenal Medulla Hemorrhage | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 47 | |
| Hyperplasia | 3 | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Islets, Pancreatic Hyperplasia | 2 | 2 | 3 | | | | | | | | 2 | | | | 2 | | | 1 | | | | | | 8 1.9 | |
| Parathyroid Gland Hyperplasia | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Inflammation, Chronic Active Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 | |
| Pituitary Gland Angiectasis | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 46 |
| Hemorrhage | | 4 | | 3 | | | | | | | | | | | 4 | 4 | | | | | 4 | | | | 14 3.5 |
| Necrosis | | | | 3 | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Pars Distalis, Cyst | X | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Pars Distalis, Cyst Multilocular | | | | | X | | | | | | | | | | | | | | | | | | | | 2 |
| Pars Distalis, Hyperplasia | 2 | | | | | 4 | | | | | | | | | | | | 3 | 3 | 2 | | | | | 12 2.8 |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Pars Intermedia, Cyst | | | | | | | | | | | X | | | | | | | | | | | | | | 2 |
| Thyroid Gland Ultimobranchial Cyst | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | 43 | |
| C-cell, Hyperplasia | | X | | | | | | | | | | | | | | | | | | | | | X | | 3 |
| Follicular Cell, Hyperplasia | 1 | 2 | | 3 | | | 2 | | 1 | | | | 2 | | | | 2 | | | | | 2 | | | 12 1.8 |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
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BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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Experiment Number: 10034 - 04
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 Bisphenol A
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 2 Year Animals

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| SPRAGUE DAWLEY (NCTR)
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|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|
| | 0681 | 0727 | 0644 | 0728 | 0779 | 0775 | 0667 | 0667 | 0559 | 0669 | 0006 | 0702 | 0667 | 0662 | 0702 | 0702 | 0408 | 0702 | 0303 | 0606 | | 0605 | 0507 | 0705 | 0501 | 0504 | 0202 |
| ANIMAL ID | 05552 | 05551 | 05562 | 05561 | 05572 | 05571 | 05577 | 05574 | 05545 | 05575 | 05555 | 05555 | 05555 | 05555 | 05533 | 05533 | 05533 | 05533 | 05533 | 05533 | 05533 | 05533 | 05533 | 05533 | 05566 | 05567 | 05599 |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | A | 45 | | |
| Atrophy | | | 3 | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Inflammation, Suppurative | | | | 4 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | 3 | | | | | | | | | | | | | 1 | 3.0 |
| Necrosis | | | | 4 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | | |
| Exfoliated Germ Cell | | | 2 | | | | | | | 3 | 2 | | | | | | | | | | 3 | 2 | | | 12 | 2.0 | |
| Hypospermia | | 4 | | | | 4 | | | | | | | | | 4 | | | 4 | 4 | 4 | | 4 | | | 14 | 4.0 | |
| Infiltration Cellular, Lymphocyte | | 2 | | 1 | 1 | | | | 1 | 2 | | | | | | 1 | | | | | 2 | | | | 14 | 1.4 | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | 1 | | | | 2 | 1.0 | |
| Preputial Gland | | | + | | | | | | + | | | | + | | | + | | + | + | | + | | | 14 | | | |
| Atrophy | | | | | | | | | 3 | | | | 3 | | | | | | | | | | | | 2 | 3.0 | |
| Cyst | | | | | | | | | X | | | | | | | | | | | | | | | | 1 | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | 4 | | | | | 3 | 4.0 | |
| Inflammation, Suppurative | | | 4 | | | | | | | | | | | | | | | 2 | 4 | | | | | | 9 | 3.8 | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | 3 | | | | | | | | | | 1 | 3.0 | |
| Duct, Dilatation | | | 4 | | | | | | | | | | | | 4 | | | 3 | 3 | | | | | | 11 | 3.6 | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | 4 | | | | | | | | | | 1 | 4.0 | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | A | 46 | | | |
| Cyst, Mucinous | | | | | | | X | X | | | | | | | | | X | | | | | | | | 6 | | |
| Fibrosis | | | 3 | 4 | | 3 | 4 | | 3 | | | | | 4 | | | | | | | | | | | 15 | 2.7 | |
| Hemorrhage | | | | | | | | | | | | | | 4 | | | | | | | | | | | 1 | 4.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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 Bisphenol A
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RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
| | 0681 | 0727 | 0644 | 0728 | 0772 | 0777 | 0666 | 0666 | 0555 | 0666 | 0000 | 0777 | 0666 | 0666 | 0777 | 0777 | 0444 | 0777 | 0333 | 0666 | | 0666 | 0555 | 0777 | 0555 |
| ANIMAL ID | 05552 | 05551 | 05552 | 05551 | 05552 | 05551 | 05552 | 05551 | 05552 | 05551 | 05552 | 05551 | 05552 | 05551 | 05552 | 05551 | 05552 | 05551 | 05552 | 05551 | 05552 | 05551 | 05552 | 05551 | 05552 |
| Infiltration Cellular, Lymphocyte | | | 2 | 4 | 1 | 3 | 4 | | 2 | 1 | | | | 1 | 1 | 2 | | | | | 1 | | | | |
| Inflammation, Suppurative | 2 | 2 | 2 | 4 | 1 | 3 | | 2 | 4 | | | 2 | 4 | 2 | 1 | 2 | 1 | 1 | 2 | | 2 | 1 | 2 | | |
| Inflammation, Chronic Active | | | | | | | 4 | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Fibrosis | | | 2 | 4 | | | 4 | 3 | | 2 | | 2 | 4 | | | 2 | 1 | | | | 2 | | 3 | | |
| Hemorrhage | | | | | | | | | | | | | 4 | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | | 1 | 3 | | | 4 | 2 | | 1 | | | | | | 2 | 1 | | | | | 1 | | 2 | |
| Inflammation, Suppurative | | | 1 | 4 | | | | | | 1 | | | 4 | | | 2 | | | | | | 1 | | | |
| Inflammation, Chronic Active | | | | | | | 4 | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | 4 | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | 3 | 2 | 2 | | | | 2 | | | | | 2 | | 2 | | | | | | 2 | 3 | 2 | |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | A | + | + | A | A | |
| Atrophy | | | 3 | 3 | | | 4 | | | | | | | | | | | | | | | | | | |
| Concretion | | | | | | | | | | | | | X | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | 3 | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | 3 | | | | | | | | | | | 3 | | | | | 3 | 2 | | | |
| Lumen, Dilatation | | | | | | | | | | | | | 2 | | | | | | | | | | 3 | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Polyarteritis | | | 3 | 1 | 2 | | | | | 3 | | 2 | 2 | | | | | | | | 3 | 2 | 4 | | |
| Seminiferous Tubule, Degeneration | | 4 | 3 | 1 | 2 | 2 | 4 | | 1 | 3 | | 2 | 1 | | | 1 | 4 | | | 4 | 4 | 4 | 3 | 4 | |

HEMATOPOIETIC SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|--------|
| | 0681 | 0727 | 0644 | 0728 | 0779 | 0775 | 0667 | 0663 | 0559 | 0667 | 0003 | 0704 | 0662 | 0662 | 0722 | 0722 | 0484 | 0722 | 0397 | 0662 | | 0553 | 0725 | 0552 | 0519 | 0554 |
| ANIMAL ID | 05552 | 05561 | 05566 | 05571 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | 2 | | | | 3 | | | | | | 4 3.0 |
| Lymph Node | | + | + | | | | | | | | | | | | + | | | | | | + | + | + | + | + | 16 |
| Axillary, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | 2 4.0 |
| Axillary, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 2 4.0 |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | 4 | | | | | | | | | | 3 3.7 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | 3 | | | | | | | | | | 4 3.0 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 2 4.0 |
| Renal, Degeneration, Cystic | | | 3 | 4 | | | | | | | | | | | | | | | | | 4 | | 4 | | 4 | 8 3.8 |
| Renal, Hemorrhage | | 3 | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Renal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | 3 3.3 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 3 | 4 | | | 3 3.7 |
| Lymph Node, Mandibular | | | | | | | | | | + | | | | | + | + | | | | + | | | + | + | 8 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | 3 | 3 | | | | | | | | | | 2 3.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | 3 | 4 | | | | | 3 | | | | | 4 3.5 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | 4 | | | | | 4 | 4 | | | | | 4 | | | | | 6 4.0 |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | + | | 1 |
| Spleen | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | |
| Hematopoietic Cell Proliferation | | | | | | | | | 2 | | 4 | | | | | | | | | | 3 | 4 | | 4 | | 16 2.7 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 1 4.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | 4 | 4 | | 2 4.0 |
| Pigmentation | | | 2 | 2 | 4 | 3 | | 3 | | 2 | 2 | | 2 | 2 | 1 | | 2 | | | 2 | | 1 | 3 | | | 26 2.1 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
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 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
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 2 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|------|-----|
| | 0681 | 0727 | 0644 | 0728 | 0779 | 0775 | 0667 | 0663 | 0559 | 0669 | 0003 | 0704 | 0667 | 0662 | 0722 | 0772 | 0484 | 0737 | 0663 | 0559 | | 0725 | 0571 | 0554 | 0552 | |
| ANIMAL ID | 05552 | 05561 | 05562 | 05561 | 05574 | 05574 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | | |
| Atrophy | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 47 | 4.0 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|-------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Atypical Focus | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Galactocele | | | | | | | | | | X | | | | | | | | | | | | X | | | | 3 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Alveolus, Degeneration | 3 | 4 | 3 | 4 | | 3 | 4 | | 4 | 4 | | | | 4 | 3 | | | 4 | 3 | | | | 3 | 28 | 3.5 | |
| Alveolus, Dilatation | | 2 | | | 3 | | | 3 | | | | | | 2 | 2 | | | | | 2 | 3 | | | 15 | 2.3 | |
| Duct, Dilatation | | | 2 | | 3 | | | 4 | | | | | | 3 | 2 | | | | | | | 4 | | 15 | 2.5 | |
| Skin | + | | + | | + | + | + | | | | | + | + | | | | | + | + | + | | | | 21 | | |
| Cyst Epithelial Inclusion | | | | | | | | X | | | | | | | | | X | | | | | | | | 6 | |
| Hyperkeratosis | | | 3 | | | | | | | | | | | | | | | | | | 4 | | | | 2 3.5 | |
| Inflammation, Suppurative | | | | | | 1 | | | | | | | | | | | | | | | | | | | 2 2.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Epithelium, Hyperplasia | | | 3 | | | | 2 | | | | | | | | | | | | | | 4 | | | | 4 3.3 | |
| Epithelium, Foot, Hyperplasia | | | | | | 4 | | | | | | | | | | | | | | | 4 | | | | 3 4.0 | |
| Foot, Edema | | | | | | 4 | | | | | | | | | | | | | | | 4 | | | | 3 3.3 | |
| Foot, Fibrosis | | | | | | 4 | | | | | | | | | | | | | | | 4 | | | | 3 4.0 | |
| Foot, Inflammation, Chronic Active | | | | | | 4 | | | | | | | | | | | | | | | 4 | | | | 3 4.0 | |
| Foot, Necrosis | | | | | | 4 | | | | | | | | | | | | | | | 4 | | | | 3 4.0 | |
| Foot, Ulcer | | | | | | 4 | | | | | | | | | | | | | | | 4 | | | | 3 4.0 | |
| Sebaceous Gland, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|---|-----|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Humerus, Abscess | | | | | | | | | | | | | | | | | | | | | | 4 | | 1 | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 Veh. StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
| | 0681 | 0727 | 0644 | 0728 | 0779 | 0775 | 0667 | 0663 | 0559 | 0606 | 0704 | 0667 | 0662 | 0772 | 0777 | 0484 | 0727 | 0369 | 0662 | 0553 | 0755 | 0521 | 0554 | 0552 | | |
| ANIMAL ID | 05552 | 05561 | 05562 | 05571 | 05572 | 05574 | 05575 | 05579 | 05580 | 05581 | 05582 | 05587 | 05588 | 05591 | 05592 | 05593 | 05594 | 05599 | 05599 | 05599 | 05599 | 05599 | 05599 | 05599 | 05599 | |
| Humerus, Osteopetrosis | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 | |
| Mandible, Osteopetrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Fibrous Osteodystrophy | | | | | | | | | | | 3 | | | | | | | | | | 2 | | | | 4 2.3 | |
| Osteopetrosis | | | | | | | | | | | | | | | | | | | | | | 3 | | | 2 3.5 | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Compression | | | | | | | | | | | | | | 4 | | 2 | | | | | | 1 | 3 | | 11 2.5 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Ventricle, Dilatation | | | | | | | | | | | | | | 2 | | | 1 | | | | | 1 | | | 7 1.4 | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 04
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

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 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| | 0675 | 0727 | 0396 | 0778 | 0776 | 0476 | 0770 | 0662 | 0661 | 0777 | 0552 | 0672 | 0667 | 0551 | 0668 | 0776 | 0777 | 0667 | 0660 | 0442 | 0330 | 0773 | 0556 | 0556 | |
| ANIMAL ID | 01371 | 01372 | 01371 | 01372 | 01371 | 01372 | 01371 | 01372 | 01371 | 01372 | 01371 | 01372 | 01371 | 01372 | 01371 | 01372 | 01371 | 01372 | 01371 | 01372 | 01371 | 01372 | 01371 | 01372 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus Dilatation | + | + | | | + | | + | + | | | + | + | | | + | + | + | | | + | + | + | | + | + |
| Intestine Large, Cecum Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | + | + | | | + | | + | + | | | + | + | | | A | + | + | | | + | A | + | | + | + |
| Intestine Small, Duodenum | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Intestine Small, Ileum | + | + | | | + | | A | + | | | A | + | | | A | + | + | | | + | A | + | | + | + |
| Intestine Small, Jejunum | | | | | + | | | | | | + | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | 3 | 2 | | | 2 | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | | X | | | | | | | | | | | | | | | | | | | | | | X |
| Clear Cell Focus | | | | | | | X | | | | | | X | | X | | | | | | | | X | | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | 1 | 4 | 2 | 1 | | 2 | 2 | | | 1 | 1 | | | 2 | | | 4 | 1 | 1 | | 1 | 2 | | |
| Eosinophilic Focus | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Fatty Change | | | | | | | | 4 | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Infiltration Cellular, Mononuclear Cell | 1 | 2 | | 2 | 1 | 1 | 2 | 1 | 2 | 2 | | 1 | 1 | | 1 | 1 | 2 | 1 | 1 | 1 | | 1 | 1 | 2 | 1 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| | 0675 | 0772 | 0396 | 0728 | 0773 | 0476 | 0768 | 0666 | 0771 | 0575 | 0667 | 0772 | 0666 | 0575 | 0667 | 0772 | 0666 | 0575 | 0667 | 0772 | 0666 | 0438 | 0375 | 0755 | |
| ANIMAL ID | 01371 | 01372 | 01378 | 01379 | 01381 | 01382 | 01384 | 01385 | 01386 | 01387 | 01388 | 01389 | 01390 | 01391 | 01392 | 01393 | 01394 | 01395 | 01396 | 01397 | 01398 | 01399 | 01400 | 01401 | 01402 |
| Tension Lipidosis | | | | 4 | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | 3 | 2 | | 1 | | | | 3 | | | | | | 2 | | 1 | | | | 1 | | |
| Bile Duct, Hyperplasia | | | 3 | | 1 | 1 | | | | 2 | | | 1 | | | | | | 1 | | | | | 2 | |
| Biliary Tract, Fibrosis | 2 | 2 | | | | | 1 | | | 1 | | 1 | 1 | | | | 2 | | 1 | | | | 1 | | 1 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| Hepatocyte, Regeneration | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | 1 | 3 | 2 | 1 | 2 | | 3 | 1 | 1 | 2 | | 2 | 2 | | | 1 | 2 | 1 | 2 | 2 | | 1 | | 1 | 2 |
| Lipomatosis | | | | 4 | 3 | | | | | 4 | 3 | 3 | | | | 2 | | 3 | 2 | | | | | | |
| Pigmentation | 1 | 2 | 1 | 1 | 2 | | 1 | 1 | | 1 | 2 | | 2 | | 1 | | | 1 | 1 | 2 | | 1 | | 1 | 1 |
| Polyarteritis | | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Acinar Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Acinus, Degeneration | 1 | 3 | 3 | 4 | 4 | | 3 | 2 | 1 | 4 | 3 | 2 | 3 | | 1 | | 4 | 3 | 3 | 4 | 1 | 1 | 1 | 1 | 2 |
| Stomach, Forestomach | + | | + | | | + | | + | + | | + | + | | | + | + | + | | | | + | + | + | + | + |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Perforation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | | | | | | | | | | 2 | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------|---|
| | 0675 | 0727 | 0392 | 0788 | 0777 | 0474 | 0777 | 0676 | 0666 | 0777 | 0555 | 0666 | 0777 | 0666 | 0555 | 0666 | 0777 | 0777 | 0666 | 0444 | 0333 | 0777 | 0555 | 0000 | | |
| ANIMAL ID | 0137 | 0137 | 0138 | 0138 | 0139 | 0140 | 0141 | 0142 | 0143 | 0144 | 0145 | 0146 | 0147 | 0148 | 0149 | 0150 | 0151 | 0152 | 0153 | 0154 | 0155 | 0156 | 0157 | 0158 | | |
| Epithelium, Hyperplasia | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular Mineralization | + | | + | | | + | | + | + | | | + | + | | | A | + | + | | | | + | + | + | + | + |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 1 | 3 | 2 | 2 | 2 | | 4 | 3 | 3 | 3 | 1 | 4 | 3 | 2 | | 1 | 2 | 1 | 4 | 2 | 4 | 1 | 1 | 2 | 2 | |
| Metaplasia, Osseous Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thrombosis | | | | X | | | | | | | | | X | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | 3 | | | | | | | | | | | | | | | | | | | | | | | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | 2 | | | | | | | | 3 | | 1 | | | | | | 2 | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Osseous | | | | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | 2 | | 2 | 1 | | 3 | | 2 | 2 | | | 2 | | 2 | | | | 2 | 3 | 2 | 3 | | 2 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | |
| Cyst | | | | | | | X | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | 3 | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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 Bisphenol A
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0675 | 0727 | 0392 | 0778 | 0773 | 0446 | 0772 | 0662 | 0661 | 0771 | 0552 | 0667 | 0776 | 0665 | 0556 | 0771 | 0662 | 0777 | 0664 | 0438 | 0375 | 0773 | 0556 | 0665 | | |
| | 0137 | 0133 | 0133 | 0133 | 0133 | 0133 | 0134 | 0134 | 0134 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | 0135 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Islets, Pancreatic Hemorrhage | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland Hyperplasia | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + |
| Pituitary Gland Angiectasis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pituitary Gland Mineralization | | | | | 2 | | | 4 | | | | | 4 | | | | | | | | 4 | | | 4 |
| Pituitary Gland Pars Distalis, Cyst | | | | | X | | | | | | X | | | | | | | | | | X | | | |
| Pituitary Gland Pars Distalis, Cyst Multilocular | | | | | | | | | | X | | | | | | | | | | | | | | |
| Pituitary Gland Pars Distalis, Hyperplasia | | | | 1 | 3 | 1 | | 2 | | | 1 | | | | | | | | | 3 | | | | |
| Pituitary Gland Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland Pars Intermedia, Cyst | | | | | X | | | | | | | | | | | | | | | | X | | | |
| Thyroid Gland Ultimobranchial Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + |
| Thyroid Gland C-cell, Hyperplasia | 1 | | 1 | 1 | | | | | | | 2 | 1 | | | | | | | | 2 | | 2 | 1 | |
| Thyroid Gland Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 3 |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | + |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bulbourethral Gland Dilatation | | | | | | | | | | | | | | | | | | | | | | | | + |
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | | | | | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|------|---|--|---|---|---|---|---|---|---|---|
| | 0675 | 0727 | 0396 | 0728 | 0772 | 0433 | 0722 | 0662 | 0671 | 0752 | 0672 | 0676 | 0572 | 0677 | 0567 | 0677 | 0677 | 0677 | 0677 | 0448 | | | 0350 | 0737 | 0575 | 0556 | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | |
| Cyst, Mucinous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | |
| Exfoliated Germ Cell | 2 | | 2 | | | | | 2 | | | | | | | | | | 1 | | 2 | | 3 | | 1 | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Hypospermia | 4 | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | 1 | 1 | | | | | | | | | | | | | | | | | | 2 | 1 | | 2 | | 1 | 1 | | 1 | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Epithelium, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesothelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | |
| Preputial Gland | | + | | | | | | | | | | | | | | | | | | + | | | | | | | | | + | + | + | + | | + | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | 3 | | 4 | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | 4 | 4 | | | 4 | |
| Duct, Dilatation | | 3 | | 4 | | | | | | | | | | | | | | | | | | 4 | | | | | | | | | 2 | 4 | 4 | | | 3 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | |
| Cyst, Mucinous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | 1 | | 2 | | 1 | | 1 | 1 | 1 | | 4 | 2 | | 1 | | 3 | | 4 | 2 | 1 | 4 | | 1 | 1 | 2 | | | | | | | | | | |
| Inflammation, Suppurative | 1 | 1 | 3 | 3 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 4 | 3 | 2 | 2 | 1 | 3 | 3 | 2 | 4 | 1 | 1 | 1 | 2 | 2 | | | | | | | | | | | |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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Experiment Number: 10034 - 04
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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 2 Year Animals

Date Report Requested: 08/16/2017
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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|
| | 0675 | 0727 | 0396 | 0728 | 0772 | 0436 | 0778 | 0620 | 0661 | 0757 | 0529 | 0672 | 0768 | 0658 | 0668 | 0772 | 0777 | 0670 | 0482 | 0350 | | | 0730 |
| Fibrosis | | | 2 | | | | | 2 | | 2 | | 4 | | | 2 | 2 | 4 | | | 4 | | | |
| Infiltration Cellular, Lymphocyte | 1 | 1 | 2 | | | 1 | | 1 | | 1 | 1 | 4 | 1 | | | 1 | 4 | 1 | | 4 | | | 1 |
| Inflammation, Suppurative | | | 2 | | | | | 1 | | 1 | | 4 | | | | | 1 | | | 4 | | | 1 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Mineralization | | | | | | | | | | | | | | | | | | | | 2 | | | |
| Polyarteritis | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Epithelium, Hyperplasia | | 2 | | 3 | | | 2 | | | | | | | | | | | | | | | | |
| Seminal Vesicle | + | + | + | + | + | + | + | A | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + |
| Atrophy | | | 3 | | | | | | | | | 3 | | | | | | | | 3 | | 3 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 4 | | |
| Lumen, Dilatation | | | | | | | | | | | 3 | | 3 | | | | | 4 | | | | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Granuloma | | | 4 | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | 2 | 2 | | | | 3 | | | | | 2 | 2 | | | | | | 3 | | | 2 | |
| Seminiferous Tubule, Degeneration | 4 | | 2 | | | | 4 | 3 | 1 | 1 | 1 | 2 | | | 1 | 2 | 1 | 4 | 2 | 1 | 3 | 4 | 1 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Hypocellularity | | | | | | | | | | | 4 | | | | | | | | | | | | | 3 |
| Myeloid Cell, Hyperplasia | | | | 4 | 4 | | | | | 4 | | | | | | | | | | | | | | |
| Lymph Node | | | + | | | | + | | + | | | + | | | | | + | | + | + | | | | |
| Axillary, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | |
| Axillary, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | |
| Inguinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | |
| Inguinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----|-----------|--------------------|
| | 0675 | 0772 | 0039 | 0078 | 0077 | 0043 | 0074 | 0066 | 0066 | 0077 | 0055 | 0066 | 0077 | 0066 | 0055 | 0066 | 0077 | 0077 | 0066 | 0044 | 0033 | 0077 | 0055 | 0055 | | | |
| | 075 | 077 | 009 | 008 | 007 | 006 | 008 | 000 | 001 | 007 | 009 | 002 | 008 | 007 | 008 | 008 | 006 | 007 | 007 | 006 | 004 | 003 | 007 | 005 | 005 | 011 | |
| | 033 | 033 | 033 | 033 | 033 | 033 | 044 | 044 | 044 | 044 | 055 | 055 | 055 | 055 | 055 | 055 | 055 | 055 | 055 | 055 | 066 | 066 | 077 | 099 | 000 | 011 | |
| | 077 | 078 | 008 | 009 | 009 | 000 | 001 | 001 | 003 | 003 | 004 | 002 | 001 | 002 | 001 | 002 | 001 | 002 | 001 | 002 | 001 | 002 | 001 | 002 | 011 | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | 4 | | | 2 | | | 4 | | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | 4 | | | 3 | | | | | | | |
| Mediastinal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Mediastinal, Infiltration Cellular, Mast Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Mediastinal, Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | 4 | 3 | | 4 | | | | 4 | 4 | | |
| Renal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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Experiment Number: 10034 - 04

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Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|
| | 0675 | 0727 | 0396 | 0728 | 0772 | 0433 | 0722 | 0660 | 0661 | 0771 | 0552 | 0672 | 0667 | 0551 | 0668 | 0776 | 0777 | 0660 | 0432 | 0370 | | | 0537 | 0556 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 |
| | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | |
| | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Cyst | | | | | | | | | | | | | | | | | | | | X | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Galactocele | | | | | | | | | | | X | | | | | | | | | | | | | |
| Alveolus, Degeneration | 4 | 4 | | 4 | 3 | | | 3 | | 4 | | 2 | | 3 | 3 | 2 | 4 | 4 | 4 | | | 2 | 4 | |
| Alveolus, Dilatation | | | | | | | | 2 | | | | | | | | | | | | | | | | 3 |
| Duct, Dilatation | | 1 | | | | | | 2 | | | | | | | | | | | | | | | | 3 |
| Skin | + | | | + | | | | | | + | | + | | + | | | | | + | + | + | | + | |
| Abscess | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | X | | | X | |
| Fibrosis | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | 4 | | | |
| Inflammation, Chronic Active | 3 | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | 3 | | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | 4 | | | | | | | | | | | | | | | | | | | | | 4 | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 2 | | | |
| Epithelium, Foot, Hyperplasia | | | | | 4 | | | | | | | | | | | | | | | | 4 | | | 4 |
| Foot, Edema | | | | | | | | | | | | | | | | | | | | | 4 | | | |
| Foot, Fibrosis | | | | | 4 | | | | | | | | | | | | | | | | 4 | | | 4 |
| Foot, Inflammation, Chronic Active | | | | | 4 | | | | | | | | | | | | | | | | 4 | | | 4 |
| Foot, Necrosis | | | | | 4 | | | | | | | | | | | | | | | | | | | 4 |
| Foot, Ulcer | | | | | 4 | | | | | | | | | | | | | | | | | | | 4 |

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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Experiment Number: 10034 - 04

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | 0675 | 0727 | 0396 | 0728 | 0776 | 0438 | 0720 | 0661 | 0767 | 0529 | 0672 | 0768 | 0658 | 0568 | 0726 | 0777 | 0670 | 0442 | 0350 | 0730 | 0575 | 0556 | males
(cont...) |
| | ANIMAL ID | 01371 | 01337 | 01338 | 01339 | 01340 | 01341 | 01342 | 01343 | 01344 | 01345 | 01346 | 01347 | 01348 | 01349 | 01350 | 01351 | 01352 | 01353 | 01354 | 01355 | 01356 | 01357 | |

Duct, Dilatation

4

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Accumulation, Hyaline Droplet | | | | | | | | | 3 | | | | | | 4 | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | 4 | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | 3 | | | | | | | | 2 | | | | |
| Necrosis | | | | | | | | | | | | | | 4 | | | | | | | | | | |
| Nephropathy | 4 | 4 | 4 | 2 | 2 | 1 | 4 | 1 | 4 | 4 | 2 | 4 | 3 | | 2 | 1 | 2 | 4 | 3 | 4 | 2 | 4 | 2 | 3 |
| Polycystic Kidney | | | | | | | | | | | | | | | | | | 4 | | | | | | |
| Cortex, Cyst | X | | | X | | | X | | | | X | | | | | | X | | X | | | | | |
| Pelvis, Dilatation | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Renal Tubule, Cyst | | | | | X | | | | X | | | | X | | | | | | | | | X | | |
| Renal Tubule, Hyperplasia, Atypical | | | | 3 | | | | | | | | | | | | | | | | | | | | |
| Transitional Epithelium, Hyperplasia | | | | 3 | | | | | | 2 | | | | | | | | | 1 | | | | | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | + | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | 4 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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M .. Missing tissue

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Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|
| | 0596 | 0725 | 0726 | 0683 | 0530 | 0726 | 0450 | 0596 | 0660 | 0660 | 0557 | 0727 | 0727 | 0662 | 0558 | 0556 | 0699 | 0728 | 0661 | 0559 | | 0649 | 0666 |
| ANIMAL ID | 0571 | 0572 | 0573 | 0574 | 0575 | 0576 | 0577 | 0578 | 0579 | 0580 | 0581 | 0582 | 0583 | 0584 | 0585 | 0586 | 0587 | 0588 | 0589 | 0590 | 0591 | 0592 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|-----|
| Esophagus Dilatation | + | | | | | | | | | | | | | | | | | | | | 32 | 1 | 4.0 |
| Intestine Large, Cecum Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 2.0 |
| Intestine Large, Colon | A + | | | | | | | | | | | | | | | | | | | | 26 | | |
| Intestine Small, Duodenum | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Intestine Small, Ileum | A A + | | | | | | | | | | | | | | | | | | | | 22 | | |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Liver | + | | | | | | | | | | | | | | | | | | | | 48 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | 4 | 2.0 |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | | | 9 | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Degeneration, Cystic | 1 | | | | | | | | | | | | | | | | | | | | 24 | 1.5 | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | 2 | 4.0 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Infiltration Cellular, Mononuclear Cell | 2 1 1 2 2 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 | | | | | | | | | | | | | | | | | | | | 40 | 1.3 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
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Bisphenol A

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F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|---|-----|---|---|----|-----|-----|-----|
| | 0596 | 0725 | 0726 | 0683 | 0530 | 0726 | 0450 | 0596 | 0660 | 0660 | 0571 | 0725 | 0725 | 0628 | 0555 | 0556 | 0677 | 0661 | 0565 | 0646 | | 0646 | | | | | | | | |
| ANIMAL ID | 0571 | 0572 | 0573 | 0577 | 0576 | 0576 | 0576 | 0576 | 0576 | 0576 | 0576 | 0576 | 0576 | 0576 | 0576 | 0576 | 0576 | 0576 | 0576 | 0576 | 0576 | | | | | | | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | 1 | 2 | 2.5 | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 9 | 1.9 | | |
| Bile Duct, Hyperplasia | 2 | 1 | | 2 | 2 | 2 | 1 | | 2 | | 2 | | 3 | | | 3 | | 1 | 4 | | 2 | | | | | | 20 | 1.9 | | |
| Biliary Tract, Fibrosis | | 1 | 2 | | | 2 | | 1 | 2 | 1 | 2 | | 2 | | 1 | | | | | | | | | | | | | 19 | 1.4 | |
| Hepatocyte, Necrosis | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | 2 | 1.5 | |
| Hepatocyte, Regeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4.0 | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4.0 | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Fat, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4.0 |
| Fat, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4.0 |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Infiltration Cellular, Lymphocyte | 3 | 3 | 2 | 1 | 1 | | 2 | | 2 | 2 | 2 | 3 | 2 | 2 | 2 | | | | | 1 | | 2 | | 2 | | | | 35 | 1.8 | |
| Lipomatosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 | 3.0 |
| Pigmentation | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | 2 | 1 | | | | 1 | | 2 | 1 | | | | | 33 | 1.3 | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Acinar Cell, Hyperplasia | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.5 |
| Acinus, Degeneration | 4 | 4 | 3 | 2 | 2 | | 3 | | 3 | 2 | 2 | 3 | 2 | 2 | 2 | | | | | 1 | | 3 | | 3 | | | | 38 | 2.5 | |
| Stomach, Forestomach | + | | | + | + | | + | + | + | + | + | | | | + | + | + | + | | + | + | + | + | + | + | + | + | 33 | | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 |
| Perforation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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| | 0596 | 0725 | 0726 | 0683 | 0530 | 0726 | 0450 | 0560 | 0660 | 0660 | 0571 | 0725 | 0725 | 0628 | 0558 | 0556 | 0699 | 0728 | 0661 | 0569 | | 0649 | 0469 | 0626 | | | |
| ANIMAL ID | 0571 | 0577 | 0577 | 0577 | 0577 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0944 | 0944 | 0944 | 0944 | 0944 | 0944 | 0944 | |
| Epithelium, Hyperplasia | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | 2 3.5 |
| Stomach, Glandular Mineralization | + | | | + | + | | | + | + | + | + | + | | | | + | + | A | + | | + | + | + | A | + | | 29 1 3.0 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 2 4.0 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Cardiomyopathy | 4 | 2 | 3 | 1 | | 2 | 1 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 4 | 1 | | 2 | 3 | 2 | 2 | | | 44 2.1 | |
| Metaplasia, Osseous | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | X | 3 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Angiectasis | | | | 2 | | | | | | | | | | | 2 | | | | | | | | | | | | 3 2.3 |
| Congestion | | | | | | | | | | | | | | | | | | | | 4 | | | | | | | 1 4.0 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Hyperplasia | 2 | | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | 7 2.0 |
| Hypertrophy | | | | | | | | | | | 1 | | 1 | | | | | | | | | | | | | | 2 1.0 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Vacuolization Cytoplasmic | | | | 2 | | | | | 3 | | | 2 | 2 | 2 | | 2 | | | | | | | | 1 | | | 20 2.1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 46 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hyperplasia | | | | | | | | | 1 | 2 | | | | 1 | | | | | | | | | 2 | | 1 | | 9 1.9 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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| | 0596 | 0725 | 0726 | 0683 | 0530 | 0726 | 0450 | 0596 | 0660 | 0660 | 0577 | 0727 | 0727 | 0622 | 0622 | 0588 | 0599 | 0699 | 0728 | 0661 | | 0567 | 0649 | 0646 | |
| ANIMAL ID | 0571 | 0572 | 0573 | 0577 | 0577 | 0676 | 0676 | 0676 | 0676 | 0676 | 0676 | 0676 | 0676 | 0676 | 0676 | 0676 | 0676 | 0676 | 0676 | 0676 | 0676 | 0676 | 0676 | | |
| Islets, Pancreatic Hemorrhage | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47
1 4.0 | |
| Parathyroid Gland Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46
17 2.5 | |
| Pituitary Gland Angiectasis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48
6 3.7 | |
| Pituitary Gland Mineralization | | | | 4 | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Pituitary Gland Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 6 | |
| Pituitary Gland Pars Distalis, Cyst Multilocular | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Pituitary Gland Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 16 2.2 | |
| Pituitary Gland Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 | |
| Pituitary Gland Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Thyroid Gland Ultimobranchial Cyst | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45
5 | |
| Thyroid Gland C-cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 18 1.6 | |
| Thyroid Gland Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 6 2.7 | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bulbourethral Gland Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 1
1 4.0 | |
| Coagulating Gland | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | 45 |

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| | 0596 | 0725 | 0726 | 0683 | 0530 | 0726 | 0450 | 0596 | 0660 | 0660 | 0571 | 0727 | 0727 | 0662 | 0585 | 0556 | 0699 | 0678 | 0661 | 0569 | | 0646 | 0696 | |
| ANIMAL ID | 0571 | 0577 | 0577 | 0577 | 0577 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0944 | 0944 | 0944 | 0944 | 0944 | 0944 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Cyst, Mucinous | | | | | | | | | | | | X | | | | | | | | | | | | 1 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Exfoliated Germ Cell | | | | | 2 | | | 2 | | 1 | | 1 | | | | | 3 | 1 | 3 | | | | | 15 1.9 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Hypospermia | | | | | | 4 | | | | | 4 | | | 4 | | | 3 | | 3 | 4 | | | | 10 3.8 |
| Infiltration Cellular, Lymphocyte | 1 | | 1 | | | | | | | | 1 | | 1 | | | 1 | | 2 | | | 1 | | 1 | 16 1.2 |
| Inflammation, Suppurative | | | | | | | | 2 | | | | | | | | | | | | | | | | 1 2.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Epithelium, Degeneration | | | | | 4 | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Epithelium, Hyperplasia | | | | | | | | | 4 | | | | | | | | | | | | | | | 1 4.0 |
| Mesothelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Preputial Gland | | | | | | + | | | + | + | | + | | | | | + | | + | | + | + | 16 | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | 4 | | | | 4 | 3 4.0 |
| Inflammation, Suppurative | | | | | | 3 | | | 4 | 3 | | | | | | | 4 | | 4 | | 3 | 4 | 13 3.7 | |
| Duct, Dilatation | | | | | | 2 | | | 4 | 3 | | | | 2 | | | 4 | | 4 | | 4 | 4 | 15 3.4 | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | 3 | | | | | | | | | | 1 3.0 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Cyst, Mucinous | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Fibrosis | | | | | | | | 4 | | | 2 | | | | | | | | | | | 2 | 8 2.8 | |
| Infiltration Cellular, Lymphocyte | | 1 | 1 | 2 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | | | 1 | 1 | 1 | | 1 | 2 | | | | 30 1.6 | |
| Inflammation, Suppurative | | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 3 | 2 | 2 | 2 | 2 | 2 | 1 | 2 | 1 | 3 | 3 | 1 | 1 | | 2 | 46 2.0 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | |
| Atrophy | | | | | 3 | 3 | | | | | | | | | | | | | | | | | | 3 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|--------|
| | 0596 | 0725 | 0726 | 0683 | 0530 | 0726 | 0450 | 0560 | 0660 | 0660 | 0577 | 0725 | 0725 | 0628 | 0555 | 0566 | 0778 | 0661 | 0565 | 0649 | | 0626 | 0429 |
| ANIMAL ID | 0571 | 0577 | 0577 | 0573 | 0533 | 0533 | 0533 | 0544 | 0544 | 0555 | 0555 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 |
| Fibrosis | | | 2 | | | | | 2 | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | | 2 | | | | | 2 | | | | | | | 1 | | | | | | | | |
| Inflammation, Suppurative | | | 1 | | | | | 3 | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | 1 | | | | | | 4 | | | 1 | | | | | | 2 | | | | | |
| Seminal Vesicle | A | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + | 43 |
| Atrophy | | | | | 3 | | | | | | | | | | | | | 4 | | | | | 6 3.2 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Lumen, Dilatation | | | | | | | 2 | | | | | | | | | | | | | | | | 4 3.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Granuloma | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Polyarteritis | | | 1 | | | | | | | | 3 | | | 2 | | | | | | | | 2 | 11 2.2 |
| Seminiferous Tubule, Degeneration | | 1 | | 1 | 1 | 4 | 1 | 1 | | 2 | 4 | 3 | 1 | 4 | | | 3 | 2 | 3 | 4 | | 1 | 33 2.2 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Hypocellularity | | | | | | | | | | | | | | | | | | 4 | | | | | 3 3.7 |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 4 | 4 4.0 |
| Lymph Node | | | | | | | | | + | + | + | | + | + | | + | | | + | | + | + | 17 |
| Axillary, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Axillary, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Inguinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Inguinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|----------|
| | 0596 | 0725 | 0776 | 0683 | 0530 | 0746 | 0459 | 0566 | 0668 | 0651 | 0722 | 0722 | 0628 | 0555 | 0567 | 0678 | 0661 | 0575 | 0609 | 0426 | | 0596 |
| ANIMAL ID | 0571 | 0572 | 0573 | 0574 | 0575 | 0776 | 0777 | 0778 | 0779 | 0780 | 0781 | 0782 | 0783 | 0784 | 0785 | 0786 | 0787 | 0998 | 0999 | 0990 | 0991 | 0992 |
| Lumbar, Degeneration, Cystic | | | | | | | | | 3 | | | 4 | | | | | | 4 | | 4 | | 7 3.6 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | 4 | 4 | | | | | | | | | | | | 3 3.7 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | 4 | 4 | | | | | | | | | | 4 | | 5 3.8 |
| Mediastinal, Degeneration, Cystic | | | | | | | | 2 | | | | | | | | | | | | | | 1 2.0 |
| Mediastinal, Hemorrhage | | | | | | | | 4 | | | | | | | | | | | | | | 1 4.0 |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Mediastinal, Infiltration Cellular, Mast Cell | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Mediastinal, Infiltration Cellular, Polymorphonuclear | | | | | | | | 4 | | | | | | | | | | | | | | 1 4.0 |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | 3 | 2 | 4 | | | | 4 | 9 3.6 |
| Renal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | 3 | | | | | | | 2 2.5 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Lymph Node, Mandibular Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | + | + | 8 5 3.4 |
| Lymph Node, Mandibular Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 5 3.2 |
| Lymph Node, Mandibular Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | 4 | | 7 3.9 |
| Lymph Node, Mesenteric Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | + | 2 1 4.0 |
| Lymph Node, Mesenteric Fibrosis | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Lymph Node, Mesenteric Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Spleen Fibrosis | | | | | | | | | | | | | | | | | | | | | | 47 1 4.0 |
| Spleen Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | 17 2.6 |
| Spleen Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 2 3.5 |
| Spleen Necrosis | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Spleen Pigmentation | | | | | | | | | | | | | | | | | | | | | | 25 2.0 |
| Spleen Polyarteritis | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|
| | 0596 | 0725 | 0726 | 0683 | 0530 | 0726 | 0450 | 0560 | 0660 | 0660 | 0571 | 0725 | 0725 | 0628 | 0555 | 0566 | 0778 | 0661 | 0565 | 0649 | | 0666 |
| ANIMAL ID | 0571 | 0577 | 0577 | 0577 | 0577 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0944 | 0944 | 0944 | 0944 | 0944 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Thymus Atrophy Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 45 | 4.0 |
| | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | | 1 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Mammary Gland Galactocele | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 1 | |
| Alveolus, Degeneration | | | 3 | | | 3 | | 2 | 3 | 4 | 4 | | | | | | | 3 | | 4 | 4 | 4 | | 25 | 3.4 |
| Alveolus, Dilatation | | | | 2 | 4 | | | | | | | | | 2 | 4 | | | 2 | | | | | | 7 | 2.7 |
| Duct, Dilatation | | | | 3 | 4 | | | | | | | | | 2 | | | | 3 | 4 | | | | | 9 | 2.7 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|--|--|--|--|--|--|--|---|---|---|---|---|---|--|---|--|---|--|--|---|---|----|---|-----|
| Skin Abscess | + | | | | | | | | + | + | + | + | + | | | | | + | | | + | + | 18 | 1 | 4.0 |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Necrosis | | | | | | | | | | | | | 3 | | | | | | | | | | | 2 | 3.0 |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | 2 | 4.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Epithelium, Foot, Hyperplasia | | | | | | | | | | | | | | 4 | | 4 | | | | | | 4 | | 6 | 4.0 |
| Foot, Edema | | | | | | | | | | | | | | 4 | | 4 | | | | | | 4 | | 4 | 4.0 |
| Foot, Fibrosis | | | | | | | | | | | | | | 4 | | 4 | | | | | | | | 5 | 4.0 |
| Foot, Inflammation, Chronic Active | | | | | | | | | | | | | | 4 | | 4 | | | | | | 4 | | 6 | 4.0 |
| Foot, Necrosis | | | | | | | | | | | | | | 4 | | 4 | | | | | | | | 4 | 4.0 |
| Foot, Ulcer | | | | | | | | | | | | | | 4 | | 4 | | | | | | | | 4 | 4.0 |

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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Experiment Number: 10034 - 04

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Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| | 0596 | 0725 | 0726 | 0683 | 0530 | 0726 | 0450 | 0590 | 0660 | 0660 | 0577 | 0725 | 0628 | 0555 | 0699 | 0678 | 0661 | 0579 | 0649 | 0626 | |
| ANIMAL ID | 0571 | 0572 | 0573 | 0574 | 0575 | 0576 | 0577 | 0578 | 0579 | 0580 | 0581 | 0582 | 0583 | 0584 | 0585 | 0586 | 0587 | 0588 | 0589 | 0590 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Bone, Femur
Fibrous Osteodystrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 1 | 4.0 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | 1 | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Brain, Brain Stem
Compression
Hemorrhage | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 10 | 2.7 |
| | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Brain, Cerebrum
Ventricle, Dilatation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 7 | 1.6 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|---|---|--|---|---|---|---|---|--|--|---|---|---|---|--|---|---|---|---|---|----|-----|-----|
| Lung
Fibrosis
Foreign Body
Hemorrhage
Infiltration Cellular, Histiocyte
Inflammation, Granulomatous
Inflammation, Chronic
Inflammation, Chronic Active
Metaplasia, Osseous
Alveolar Epithelium, Hyperplasia | + | | + | + | | + | + | + | + | + | | | + | + | + | + | | + | + | + | + | + | 33 | 1 | 3.0 |
| | | | | | | | | | | | | | | | | | | | | | | | 6 | | |
| | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| | | | | | | | | | | | | | | | | | | | | | | | 9 | 2.3 | |
| | | | | | | | | | | | | | | | | | | | | | | | 6 | 2.3 | |
| | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.5 | |
| | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| | | | | | | | | | | | | | | | | | | | | | | | 3 | 3.0 | |
| Nose | + | | + | + | | + | + | + | + | + | | | + | + | + | + | | + | + | + | + | + | 32 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
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Experiment Number: 10034 - 04
 Test Type: CHRONIC
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 Bisphenol A
 CAS Number: 80-05-7
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2.5 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|--|
| | 0596 | 0725 | 0726 | 0683 | 0530 | 0726 | 0450 | 0560 | 0660 | 0660 | 0571 | 0727 | 0727 | 0622 | 0622 | 0858 | 0999 | 0922 | 0667 | 0570 | | 0422 | 0696 | |
| ANIMAL ID | 0571 | 0577 | 0577 | 0577 | 0577 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0766 | 0944 | 0944 | 0944 | 0944 | 0944 | 0944 | |
| | 1 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 7 | 7 | 8 | 8 | 9 | 9 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|---|---|--|---|---|---|---|---|---|--|--|---|---|---|---|--|---|---|---|---|---|----|-----|--|
| Autolysis | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | |
| Cyst Epithelial Inclusion | | | | | | | | | | X | | | | | | | | | | | | | | | 1 | | |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | X | | | 1 | | |
| Inflammation, Suppurative | | | | | | | | | | | 3 | | | | | | | | | | | | 2 | | 3 | 2.3 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 4 | 3 | | 2 | 3.5 | |
| Epithelium, Upper Molar, Hyperplasia | | | | | | | | | | | 4 | | | | | | | | | | | | | | 1 | 4.0 | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | 4 | | | 2 | | 3 | | | | | | 4 | 4 | | 3 | | | 4 | 4 | 3 | | 18 | 2.8 | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | 1 | | | | | 2 | | | | | | 4 | | 2 | | | | | | | | 8 | 2.1 | |
| Respiratory Epithelium, Hyperplasia, Goblet Cell | | | | | | | | | | | 2 | 2 | | | | | | | | | 3 | 2 | | | 4 | 2.3 | |
| Transitional Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | 4 | | | | | | | | | | 2 | 3.0 | |
| Upper Molar, Inflammation, Suppurative | | | | | | | | | | | 3 | | | | | | | | | | | | | | 1 | 3.0 | |
| Trachea | A | | | + | + | | + | + | + | + | + | + | | | + | + | A | + | | + | + | + | A | + | | 26 | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Cataract | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Lacrimal Gland | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Fibrosis | | | | | | | | | | | + | | | | | | | | | | | | | | 1 | 4.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
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Experiment Number: 10034 - 04
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|------|------|------|
| | 0727 | 0405 | 0728 | 0668 | 0478 | 0760 | 0664 | 0666 | 0766 | 0553 | 0770 | 0666 | 0566 | 0441 | 0330 | 0339 | 0490 | 0349 | 0771 | 0668 | | | 0660 | 0722 | 0566 | 0700 | 0678 | 0665 |
| Biliary Tract, Fibrosis
Capsule, Fibrosis
Hepatocyte, Necrosis
Oval Cell, Hyperplasia | | | 1 | 2 | | 1 | | 1 | | | 1 | 1 | | | | | | | | | 1 | | | | | | | |
| Mesentery
Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas
Basophilic Focus
Fibrosis
Hemorrhage
Infiltration Cellular, Lymphocyte
Inflammation, Chronic Active
Lipomatosis
Pigmentation
Polyarteritis
Thrombosis
Acinus, Degeneration
Artery, Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Stomach, Forestomach
Cyst Epithelial Inclusion
Edema
Epithelium, Hyperplasia | X | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular
Mineralization | | A | | + | + | + | + | + | | + | | + | A | + | A | + | + | | + | + | | + | + | | + | + | A | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|--|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 7 | 4 | 7 | 6 | 4 | 7 | 6 | 6 | 7 | 5 | 7 | 6 | 6 | 5 | 4 | 3 | 7 | 7 | 6 | 6 | 7 | 5 | 7 | 6 | 6 |
| | F1 25.0 StDose M | 2 | 0 | 2 | 6 | 7 | 2 | 2 | 9 | 3 | 0 | 2 | 7 | 4 | 1 | 9 | 9 | 1 | 2 | 8 | 0 | 2 | 6 | 0 | 7 | 5 |
| | | 7 | 5 | 8 | 8 | 8 | 0 | 4 | 3 | 0 | 6 | 5 | 8 | 9 | 3 | 0 | 4 | 7 | 9 | 1 | 8 | 9 | 8 | 0 | 6 | 6 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 |
| | | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 |
| | | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

Epithelium, Hyperplasia

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mineralization | | | | | 3 | | | | | | | | | | | | | | | | | | | | 2 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 4 | 1 | 2 | 2 | 3 | 3 | 4 | 1 | 2 | 1 | 3 | 1 | 3 | 3 | 4 | | 2 | 2 | 1 | 3 | 3 | 2 | 2 | 3 | 2 |
| Metaplasia, Osseous | | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | 3 | | | | | | | | | | | | | | | | | | | | 2 |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | X |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Degeneration, Cystic | | | | | | 2 | | | | | | | | | | | | | | | | 1 | | | |
| Hyperplasia | 3 | | | | | | | | | | 2 | | | | | | | | | | 2 | | | | |
| Vacuolization Cytoplasmic | 2 | | | | | | | | 1 | | | | | 2 | 1 | | 2 | | 2 | 4 | | 2 | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | 1 | | 1 | | | | | | | | | | | | | 3 | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | 2 | 4 | 2 | 2 | | 3 | | 2 | 3 | 2 | | | | 2 | | 2 | | | | | 2 | 3 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

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Bisphenol A

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|---|
| | 0727 | 0405 | 0728 | 0668 | 0478 | 0720 | 0664 | 0663 | 0769 | 0530 | 0720 | 0665 | 0668 | 0527 | 0499 | 0394 | 0717 | 0779 | 0661 | 0668 | | | 0728 | 0568 | 0700 | 0678 |
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Abscess | | | + | + | | | | | | | | | | | | | + | + | + | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst, Mucinous | | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 4 4 4 2 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | | | 2 2 2 1 1 4 4 3 2 1 1 1 3 2 3 2 1 1 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | 2 2 2 2 1 4 4 3 2 1 1 1 3 2 2 2 3 2 2 2 2 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 4 3 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 4 4 4 2 2 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4 4 4 1 1 1 1 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | 4 4 4 1 2 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 2 3 2 1 1 2 3 2 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 4 3 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 3 3 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|------------------|
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Polyarteritis
 Seminiferous Tubule, Degeneration

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|--|---|--|---|---|---|---|---|---|---|---|---|---|
| Polyarteritis | | | | | | | | | | 2 | 1 | | 2 | | | | | | 1 | | | | | | 1 | 4 |
| Seminiferous Tubule, Degeneration | 1 | 4 | 4 | 1 | 1 | 4 | 1 | 4 | 2 | 4 | | 4 | | | 1 | | 2 | 1 | 3 | 1 | 2 | 1 | 1 | 1 | 4 | |

HEMATOPOIETIC SYSTEM

Bone Marrow
 Hypocellularity
 Myeloid Cell, Hyperplasia

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | A | + | + | + | + | + | + | + | + | + | + |
| Hypocellularity | | | | | | | | | | | | | | | | | | | | | | | | 4 | | |
| Myeloid Cell, Hyperplasia | | | | | | 4 | | | | | | | 4 | | | | | | | | | | | | | |

Lymph Node
 Axillary, Hyperplasia, Lymphoid
 Axillary, Infiltration Cellular, Plasma Cell
 Lumbar, Degeneration, Cystic
 Lumbar, Hemorrhage
 Lumbar, Hyperplasia, Lymphoid
 Lumbar, Infiltration Cellular, Plasma Cell
 Lumbar, Infiltration Cellular,
 Polymorphonuclear
 Mediastinal, Degeneration, Cystic
 Mediastinal, Hemorrhage
 Mediastinal, Hyperplasia, Lymphoid
 Mediastinal, Infiltration Cellular, Histiocyte
 Pancreatic, Infiltration Cellular, Plasma Cell
 Renal, Degeneration, Cystic
 Renal, Hemorrhage
 Renal, Infiltration Cellular, Plasma Cell
 Renal, Pigmentation

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|---|---|--|--|--|--|---|--|--|--|---|---|---|--|--|--|--|---|
| Lymph Node | | | | | | | | | | + | | | | | + | | | | | + | + | | | | | + |
| Axillary, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Axillary, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | 4 | | | | | | | | | | 4 | | 4 | | | | | |
| Lumbar, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | 4 | | | | | | | | | | | 3 | | | | | | |
| Lumbar, Infiltration Cellular,
Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | |

Lymph Node, Mandibular
 Degeneration, Cystic

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|---|--|--|--|--|--|--|--|--|---|--|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | 4 | | + | + | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|
| | 0727 | 0405 | 0708 | 0608 | 0408 | 0702 | 0604 | 0603 | 0709 | 0500 | 0702 | 0607 | 0609 | 0503 | 0409 | 0304 | 0701 | 0709 | 0608 | 0600 | 0702 | 0508 | 0700 | 0608 | | 0606 |
| ANIMAL ID | 01531 | 01532 | 01534 | 01532 | 01531 | 01531 | 01531 | 01531 | 01531 | 01531 | 01533 | 01533 | 01533 | 01533 | 01533 | 01533 | 01533 | 01537 | 01537 | 01537 | 01537 | 01535 | 01535 | 01535 | 01535 | 01535 |
| Hyperplasia, Lymphoid Infiltration Cellular, Plasma Cell | | 3 | | | | | | | | | | | 4 | | | | | | | | 3 | 4 | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | + | | | | | | | | | | | | |
| Spleen | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hematopoietic Cell Proliferation | | | | | 2 | 4 | | | | | | | | | | | | | | | | | 1 | | | 3 |
| Hyperplasia, Lymphoid Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capsule, Fibrosis | 2 | | 2 | | 1 | | | | | 1 | 2 | | | | 1 | 3 | | | 2 | 2 | | 1 | 4 | 4 | 3 | 1 |
| Thymus | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | 4 | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | 4 | 4 | | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Galactocele | | | X | | | | | | | | | | | | | | | | | | | | | | | X |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolus, Degeneration | 4 | | | 3 | 4 | | 3 | 4 | | 2 | | | | 3 | | | 3 | 3 | 4 | 3 | 4 | | | | 4 | |
| Alveolus, Dilatation | | | 2 | | | | | | | | | | | | | | | | | | | | 3 | 2 | | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 | | 3 |
| Skin | | + | + | | | | | | | | | + | | + | + | | | + | | + | + | + | | + | + | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | X | | | | | | X | | X | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | 4 | | | | | | | | | |
| Inflammation, Suppurative | | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | 4 | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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 M .. Missing tissue
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RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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2 | 0
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2 | 0
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3 | 0
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5 | 0
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8 | 0
5
8
3
1 | 0
5
8
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2 | 0
5
8
6
1 | 0
5
8
6
2 | 0
5
8
6
7 | 0
5
8
6
8 |

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|------------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|---|---|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Ulcer | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Foot, Hyperplasia | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | 4 |
| Foot, Edema | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Foot, Fibrosis | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | 4 |
| Foot, Inflammation, Chronic Active | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | 4 |
| Foot, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Foot, Ulcer | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | 4 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vertebra, Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Osteopetrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | | + |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Compression | | | | | 2 | | | | 4 | | | | | | | | | | | | | | | | 4 | 3 | 1 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
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8 | 0
6
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9 | 0
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2 | 0
1
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6
1 | 0
1
5
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2 | 0
1
5
7
1 | 0
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7
2 | 0
3
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9
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2 | 0
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1 | 0
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2 | 0
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1 | 0
5
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2 | 0
5
7
6
1 | 0
5
8
6
2 |

Brain, Cerebrum
 Gliosis
 Hemorrhage
 Necrosis
 Ventricle, Dilatation

+
 1 1 2 1

Nerve Trigeminal
 Axon, Degeneration

+ +
 1

Peripheral Nerve, Sciatic

+ +

Peripheral Nerve, Tibial

+ +

Spinal Cord, Cervical

+ +

Spinal Cord, Lumbar
 Axon, Degeneration

+ +
 1

Spinal Cord, Thoracic

+ +

RESPIRATORY SYSTEM

Lung
 Foreign Body
 Infiltration Cellular, Histiocyte
 Infiltration Cellular, Lymphocyte
 Inflammation, Suppurative
 Inflammation, Granulomatous
 Inflammation, Chronic Active
 Metaplasia, Osseous

+
 X
 2 4 1 1 2
 1 4
 3 1 4
 1 1

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|
| | 0727 | 0405 | 0728 | 0668 | 0478 | 0720 | 0664 | 0663 | 0753 | 0570 | 0726 | 0669 | 0664 | 0513 | 0430 | 0794 | 0771 | 0681 | 0660 | 0729 | | | 0588 | 0700 | 0675 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 |
| | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 3 | 3 | 5 | 5 | 6 |
| | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

Alveolar Epithelium, Hyperplasia 2
 Bronchiole, Epithelium, Hyperplasia 4
 Subpleura, Cyst X

Nose + + + + + + + + + + + + + + + + + + A +
 Fibrous Osteodystrophy
 Foreign Body X
 Inflammation, Suppurative 2 2
 Olfactory Epithelium, Accumulation, Hyaline Droplet 2 3 3 4 2 2 1 3 3 4 2 3 3
 Posterior To Upper Incisor, Malformation X
 Respiratory Epithelium, Accumulation, Hyaline Droplet 3 2 2 2 1 2 2
 Respiratory Epithelium, Hyperplasia, Goblet Cell 2
 Transitional Epithelium, Accumulation, Hyaline Droplet 3
 Upper Molar, Inflammation, Suppurative 4
 Upper Molar, Keratin Cyst X
 Upper Molar, Necrosis 4

Trachea A + + + + + + + A + A + + + + + A +
 Inflammation, Chronic Active 1
 Epithelium, Hyperplasia 3

SPECIAL SENSES SYSTEM

Eye + +
 Cataract 3
 Fibrosis 4
 Inflammation, Chronic Active 4

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|
| | 0639 | 0583 | 0553 | 0517 | 0535 | 0663 | 0669 | 0558 | 0778 | 0545 | 0700 | 0728 | 0778 | 0778 | 0669 | 0778 | 0722 | 0728 | 0778 | 0778 | | 0496 |
| ANIMAL ID | 0587 | 0588 | 0588 | 0589 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 48 |

Epithelium, Hyperplasia

4

4

2 4.0

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|
| Blood Vessel Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 6 | 3.3 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Cardiomyopathy | 2 | | 2 | 4 | 3 | 1 | 2 | 4 | 3 | 1 | 4 | 2 | 2 | 4 | 2 | 3 | 3 | 2 | 1 | 1 | 2 | 1 | 45 | 2.4 |
| Metaplasia, Osseous | | | | | 2 | | | | | | | | | | | | | 1 | | | | | 3 | 1.7 |
| Mineralization | | | | 3 | | | | 4 | | | 4 | | | 3 | | | | | | | | | 6 | 3.2 |
| Thrombosis | | | | | X | | | | | | | | | | | | | | | | | | 2 | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | | |
| Accessory Adrenal Cortical Nodule | | | | | | X | | | | | | | | | | | | | | | | | 1 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Degeneration, Cystic | | | | | | | | | | | 4 | | | | | | | | | | | | 3 | 2.3 | |
| Hyperplasia | | | | | | | | 3 | | | | | | | | | | 2 | | | 2 | | 6 | 2.3 | |
| Vacuolization Cytoplasmic | | | | | 1 | 2 | 2 | | 1 | 1 | | | | 2 | 2 | | | 1 | 2 | 1 | 2 | | 19 | 1.7 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | | |
| Hyperplasia | | | | | 1 | | 1 | 4 | | | 2 | | | | | 3 | 1 | | | | 1 | | 10 | 1.8 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | | |
| Parathyroid Gland | + | + | + | M | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | | |
| Hyperplasia | 2 | | 2 | | | | 2 | 4 | 1 | | 3 | 2 | 1 | 4 | | 2 | 1 | | 2 | | 2 | 1 | 3 | 27 | 2.3 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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2) Mild 4) Marked

Experiment Number: 10034 - 04

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|
| | 0639 | 0583 | 0553 | 0517 | 0535 | 0663 | 0669 | 0558 | 0775 | 0570 | 0788 | 0770 | 0777 | 0778 | 0669 | 0775 | 0778 | 0663 | 0772 | 0778 | | 0778 | 0777 | 0496 |
| ANIMAL ID | 0582 | 0588 | 0588 | 0588 | 0588 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0778 | 0778 | 0778 | 0886 | 0886 | 0991 | 0991 | 0991 | 0991 | 0991 | 0991 | 0991 | 0991 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Angiectasis | | | | | | 4 | | | | | | | | 4 | | | | | 4 | | | | | 7 4.0 |
| Hemorrhage | | | | | | | | | | | | | | | | 4 | | | | | | | | 1 4.0 |
| Pars Distalis, Cyst | | | | | | | | | X | | | | | | | | | X | | | | X | | 5 |
| Pars Distalis, Cyst Multilocular | | | | | | | | | | | | | X | | | | | | | | | | | 3 |
| Pars Distalis, Hyperplasia | | | 4 | 2 | | | 3 | 3 | | 2 | | 2 | | | | | | | 4 | | | 2 | 1 | 18 2.3 |
| Pars Distalis, Hypertrophy | | 1 | | | | | | | | | | 2 | | | | | | | | | | | | 3 1.7 |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | 44 |
| Ultimobranchial Cyst | | | | | | | | | X | | X | | | | X | | | | | | | | | 5 |
| C-cell, Hyperplasia | | | | 3 | | | | | | 1 | 2 | 2 | 1 | | | | | | | | | | | 11 1.9 |
| Follicle, Cyst | | | | | | | | | | | | X | | | | | | | | X | | | | 3 |
| Follicular Cell, Hyperplasia | 4 | | | | | | | | | | | | | 3 | | | | | | 2 | | | 2 | 9 2.9 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 44 |
| Atrophy | | | | 2 | | | | | | | | | | | | | | | | | | | | 4 3.3 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Exfoliated Germ Cell | | | | | | | 2 | 2 | | | 3 | | | | | | 1 | 2 | | | | 2 | | 11 1.8 |
| Hypospermia | | | | 4 | | | 4 | | | 4 | 4 | 4 | | | | | 4 | | 4 | | 3 | | | 15 3.9 |
| Infiltration Cellular, Lymphocyte | | | 1 | | 1 | | 1 | | | 1 | | 1 | | | 1 | 1 | 1 | 2 | | 1 | 1 | | | 16 1.1 |
| Polyarteritis | | | | | | | | | | 2 | | | | 2 | | | | | | | | | | 3 1.7 |
| Spermatocele | | | | | | | X | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
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2) Mild 4) Marked

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RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|--------|
| | 0639 | 0583 | 0553 | 0517 | 0535 | 0663 | 0669 | 0588 | 0725 | 0570 | 0778 | 0778 | 0778 | 0669 | 0775 | 0778 | 0663 | 0778 | 0722 | 0728 | | 0778 | 0778 | 0496 |
| ANIMAL ID | 0587 | 0588 | 0588 | 0589 | 0577 | 0577 | 0577 | 0577 | 0577 | 0577 | 0578 | 0578 | 0578 | 0586 | 0599 | 0599 | 0599 | 0599 | 0599 | 0599 | 0599 | 0599 | 0599 | 0599 |
| Preputial Gland | | + | + | + | | | | | | + | + | + | | | | + | + | + | | | | | | 17 |
| Abscess | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Atrophy | | | | | | | | | | | | 3 | | | | | | | | | | | | 1 3.0 |
| Hyperkeratosis | | | | | | | | | | | | | | 4 | | | | | 4 | | | | | 3 4.0 |
| Inflammation, Suppurative | | | 3 | 4 | 3 | | | | | | | | | | | | | 2 | 2 | 2 | | | | 14 3.1 |
| Duct, Dilatation | | | | | 4 | | | | | | 3 | 4 | | | | | 3 | 3 | 4 | | | | | 13 3.5 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Cyst | | | | | | | | | | | | | | | | | | | X | | | | | 1 |
| Cyst, Mucinous | | | | | X | | | | | | X | X | | | | | | | X | | | X | | 6 |
| Fibrosis | | | | 2 | | | | | | | | | | 1 | 2 | 1 | | | | | 1 | | | 11 2.4 |
| Infiltration Cellular, Lymphocyte | | | | 2 | | 1 | 1 | | 2 | 1 | | | 1 | | 1 | 2 | 2 | 1 | 2 | | 1 | 1 | | 28 1.7 |
| Inflammation, Suppurative | 1 | | 2 | | 1 | 2 | 1 | 3 | 2 | 1 | 1 | 3 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 1 | 1 | 1 | 2 | 41 1.9 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 4 3.3 |
| Fibrosis | | | 1 | | | 1 | | 4 | | | 2 | | | | | | | 2 | | | | 1 | | 12 2.4 |
| Infiltration Cellular, Lymphocyte | 1 | | 1 | | 1 | | 4 | 1 | 1 | | | | | | | | | 2 | | | | | | 15 1.9 |
| Inflammation, Suppurative | | 1 | | | | | 4 | | | | | | | | | | 1 | | | | | 2 | 1 | 9 2.6 |
| Epithelium, Hyperplasia | 4 | | | | | | | 3 | | | | | 2 | 4 | | 1 | 2 | 1 | 2 | | 2 | | | 17 2.2 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | A | + | + | + | + | + | + | 41 |
| Atrophy | | | | 4 | | | | | | | | | | | | | | | | | | | | 4 3.8 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Epithelium, Hyperplasia | | | | | | | | | | 2 | | | | | | | | | 2 | | | | | 4 2.5 |
| Lumen, Dilatation | | | | | | | | | 2 | | | | | | | | | | | | | | | 2 3.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|
| | 0639 | 0583 | 0553 | 0517 | 0535 | 0673 | 0669 | 0588 | 0728 | 0545 | 0750 | 0778 | 0778 | 0778 | 0679 | 0775 | 0778 | 0683 | 0728 | 0728 | | 0728 | 0778 | 0749 |
| ANIMAL ID | 0587 | 0588 | 0588 | 0589 | 0599 | 0771 | 0772 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 |
| Polyarteritis | 1 | | | 4 | | | | 4 | | | 4 | | 1 | 2 | | 2 | | 3 | | | 1 | | | |
| Seminiferous Tubule, Degeneration | 2 | | 1 | 4 | 1 | 2 | 2 | 4 | 1 | 1 | 4 | 4 | 4 | 1 | 2 | 2 | 1 | 4 | 1 | 4 | 4 | | 1 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Hypocellularity | | | | | | | | | | | | | | | | | | 3 | | | | | | 2 |
| Myeloid Cell, Hyperplasia | | | 4 | | | | | | | | | | | | | | | | | | | | | 3 |
| Lymph Node | | | | + | + | + | | + | + | | + | | | + | | | | | | | | + | | 15 |
| Axillary, Hyperplasia, Lymphoid | | | | | | 4 | | | | | | | | | | | | | | | | | | 1 |
| Axillary, Infiltration Cellular, Plasma Cell | | | | | | 3 | | | | | | | | | | | | 3 | | | | | | 2 |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | 4 | | | | | | | | | | | | 4 |
| Lumbar, Hemorrhage | | | 4 | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | 4 | | | | | | | | | | | | 3 |
| Lumbar, Infiltration Cellular, Polymorphonuclear | | | 4 | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Degeneration, Cystic | | | | | | | | 4 | | | | | | 2 | | | | | | | | | | 2 |
| Mediastinal, Hemorrhage | | | | 4 | | | | 2 | | | | | | 4 | | | | | | | | | | 3 |
| Mediastinal, Hyperplasia, Lymphoid | | | | | 2 | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinal, Infiltration Cellular, Histiocyte | | | | | 4 | | | | | | | | | | | | | | | | | | | 1 |
| Pancreatic, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 3 | | 1 |
| Renal, Degeneration, Cystic | | | | 4 | 2 | | | 4 | | | | | | 4 | | | | | | | | | | 5 |
| Renal, Hemorrhage | | | | 3 | 4 | | | 2 | 3 | | | | | 4 | | | | | | | | | | 6 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | 3 | | | | | | | | | | | | | | 1 |
| Renal, Pigmentation | | | | | 4 | | | | | | | | | | | | | | | | | | | 1 |
| Lymph Node, Mandibular | + | | | + | + | | | + | + | | | | | | | + | | + | | | | + | | 14 |
| Degeneration, Cystic | 2 | | | 3 | 4 | | | 4 | | | | | | | | | | 4 | | | | | | 8 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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Time Report Requested: 10:21:03

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25.0 StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|----------|
| | 0639 | 0583 | 0553 | 0557 | 0553 | 0663 | 0669 | 0558 | 0778 | 0754 | 0770 | 0772 | 0778 | 0669 | 0775 | 0778 | 0663 | 0778 | 0778 | 0778 | |
| ANIMAL ID | 0587 | 0588 | 0588 | 0588 | 0588 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0777 | 0999 | 0999 | 0999 | 0999 | 0999 | |
| Hyperplasia, Lymphoid Infiltration Cellular, Plasma Cell | 4 | | | 3 | 3 | | | | 3 | | | | | | | | | | | 4 | 8 3.5 |
| Lymph Node, Mesenteric | 4 | | | | 4 | | | | 2 | | | | | | | 4 | | | | 3 | 10 3.5 |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Hematopoietic Cell Proliferation | 1 | | | 4 | | | | | 4 | | | 3 | | | | | | | | | 9 2.7 |
| Hyperplasia, Lymphoid | | | | | 2 | | | | 2 | | | | | | | | | | | | 3 2.0 |
| Pigmentation | 2 | | | | | | 3 | | | | 2 | 1 | | 1 | 2 | | 1 | 3 | | 2 2 | 27 2.0 |
| Capsule, Fibrosis | | | | | | | | | | | | | | | | | | | | 3 2 1 | 1 2.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Atrophy | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | M + | 44 4.0 |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 |
| Fibrosis | | | | | | | | | | | | | | 3 | | | | | | | 1 3.0 |
| Galactocele | | | | | | | | | X | | | | | X | | X | | | | | 5 |
| Mineralization | | | | | | | | | | | | | | 3 | | | | | | | 1 3.0 |
| Alveolus, Degeneration | | | 3 | 4 | | | 4 | 2 | | 4 | | 3 | 4 | | 4 | | | | | 4 | 22 3.5 |
| Alveolus, Dilatation | | | | | | 3 | | | | | | | | | | 2 | | | 3 | | 6 2.5 |
| Duct, Dilatation | | | | | | 3 | | | 3 | | 4 | | | 2 | | 2 | 1 | | 2 | | 10 2.6 |
| Skin | + | + | | | + | | + | | + | + | + | + | | | | + | + | | | + | 24 |
| Cyst Epithelial Inclusion | | X | | | | | X | | X | X | | | X | | | | | | | X | 10 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Suppurative | | | | | 4 | | | | | | | | | | | | | | | | 2 3.0 |
| Inflammation, Granulomatous | | | | | | | | 4 | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | 1 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
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| | 0639 | 0583 | 0553 | 0557 | 0553 | 0667 | 0669 | 0558 | 0778 | 0754 | 0770 | 0772 | 0773 | 0663 | 0773 | 0778 | 0668 | 0772 | 0778 | 0778 | | 0774 |
| ANIMAL ID | 0587 | 0588 | 0588 | 0588 | 0589 | 0771 | 0777 | 0777 | 0777 | 0777 | 0777 | 0778 | 0778 | 0888 | 0888 | 0996 | 0996 | 0996 | 0996 | 0996 | 0996 | 0996 |

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Gliosis | | | | 3 | | | | | | | | | | | | | | | | | | 1 3.0 |
| Hemorrhage | | | | 2 | | | | | | | | | | | | 4 | | | | | | 2 3.0 |
| Necrosis | | | | 3 | | | | | | | | | | | | | | | | | | 1 3.0 |
| Ventricle, Dilatation | | | | | | 2 | | | | | | | | | | 2 | | | | | | 6 1.5 |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | 2 |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | 2 |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | 2 |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | 2 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Lung | + | + | + | + | + | + | + | + | | + | + | + | + | + | + | | + | + | + | | + | + | 39 |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Infiltration Cellular, Histiocyte | | | | 1 | | | 3 | | | | | | 2 | | 2 | 2 | | | 1 | 1 | | 2 | 13 1.8 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 2 3.5 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
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| | 0639 | 0583 | 0553 | 0557 | 0553 | 0667 | 0669 | 0558 | 0775 | 0752 | 0770 | 0772 | 0772 | 0663 | 0773 | 0778 | 0668 | 0772 | 0778 | 0778 | | 0774 | 0776 |
| ANIMAL ID | 0587 | 0588 | 0588 | 0589 | 0581 | 0771 | 0777 | 0777 | 0777 | 0777 | 0777 | 0778 | 0778 | 0778 | 0861 | 0866 | 0866 | 0866 | 0866 | 0933 | 0933 | 0944 | 0942 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|--|--|---|--|--|--|---|---|---|---|--|----|--------|
| Alveolar Epithelium, Hyperplasia | | | | | | 1 | | | | | 2 | | | 2 | | | | | 1 | | 1 | | | 6 1.5 |
| Bronchiole, Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Subpleura, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nose | + | + | + | + | + | + | + | + | + | + | | | | + | | | | | | | + | | 31 | |
| Fibrous Osteodystrophy | | | | 2 | | | | 4 | | | | | | 3 | | | | | | | | | | 3 3.0 |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Suppurative | 2 | | | | | | | | | | | | | | | | | | | | | | | 4 2.3 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 3 | | | | | 3 | 3 | | | | 2 | | | 4 | | | | | | 3 | | | | 18 2.8 |
| Posterior To Upper Incisor, Malformation | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | | | 2 | | | | 2 | | | 2 | | | | | | 2 | | | | 11 2.0 |
| Respiratory Epithelium, Hyperplasia, Goblet Cell | 2 | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Transitional Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Upper Molar, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Upper Molar, Keratin Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Upper Molar, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Trachea | + | + | + | + | + | + | + | + | + | + | | | | + | | | | A | | | + | | 27 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Cataract | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|
| | 0727 | 0754 | 0755 | 0755 | 0755 | 0755 | 0754 | 0777 | 0777 | 0766 | 0744 | 0744 | 0766 | 0766 | 0755 | 0766 | 0777 | 0755 | 0733 | 0777 | | | 0766 | 0777 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 | 6 |
| | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 |
| | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| Biliary Tract, Fibrosis | | | 1 | | 1 | | | | | | 2 | | | | 1 | | | | | | | | 2 | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Basophilic Focus | | | | | | | | | | | | | | X | | | | | | | | | | |
| Cyst Multilocular | | | | | | | | | | | | | | | | | X | | | | | | | |
| Infiltration Cellular, Lymphocyte | 2 | 2 | 2 | | 2 | 2 | 2 | | 1 | 1 | 2 | 2 | | 1 | 2 | 1 | | 1 | 1 | 2 | | 1 | 1 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | 2 | | | | | | 2 | |
| Lipomatosis | | | | | | | 4 | | | | | | | 2 | | | | | | | | 2 | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | 2 | | | | 1 | 1 | 3 | | 1 | 1 | 1 | 1 | 1 | | 1 | 1 | | 1 | 1 | 2 | | | 1 | |
| Polyarteritis | | | | | | | | | | | | 1 | | | | | | | | | | | | |
| Acinus, Degeneration | 4 | 3 | 2 | | 3 | 2 | 4 | 2 | 2 | 2 | 2 | 1 | 1 | 2 | 3 | 1 | 4 | 1 | 1 | 2 | | 2 | 2 | 3 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Stomach, Forestomach | | | + | + | + | + | + | + | | | + | + | + | + | + | + | + | | + | + | | + | + | |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | 4 | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | 4 | | | | | | | | | | | | |
| Stomach, Glandular | | | + | A | + | + | + | + | | | + | + | + | + | + | + | + | | + | + | | + | + | |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|--|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | | |
| | F1 250.0StDose M | 7 | 7 | 5 | 5 | 5 | 5 | 5 | 4 | 7 | 7 | 6 | 4 | 4 | 6 | 6 | 5 | 6 | 7 | 5 | 3 | | 7 | 6 | 7 | 4 |
| | ANIMAL ID | 2 | 2 | 7 | 1 | 6 | 8 | 0 | 0 | 2 | 2 | 2 | 9 | 1 | 3 | 9 | 3 | 2 | 2 | 4 | 4 | 2 | 3 | 2 | 0 | 2 |
| | | 7 | 9 | 4 | 1 | 9 | 8 | 7 | 0 | 7 | 8 | 5 | 8 | 2 | 3 | 2 | 8 | 1 | 7 | 3 | 4 | 8 | 9 | 9 | 4 | 5 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 6 | 6 | 6 | 6 | 6 |
| | | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 |
| | | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

Tongue +
 Hemorrhage 2

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Intima, Proliferation | | | | | | | | | | 3 | | | | | | | | | | | | | | | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 2 | 3 | 1 | 2 | 1 | 2 | 3 | 1 | 2 | 2 | 2 | 3 | 1 | 1 | 2 | 1 | 2 | 1 | 3 | 1 | 2 | 2 | 3 | 2 | 2 |
| Metaplasia, Osseous | | | | 1 | | | | | | | | 1 | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Degeneration, Cystic | | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | 1 | | | | | | | 1 | | | | | | | | | | | | | | | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Osseous | | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | 2 | | | | 2 | | | | | 2 | | | 3 | | | | | 2 | 2 | | | 2 | | 2 | 3 |
| Adrenal Medulla | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | 2 | | | | | | 2 | | | | | | | | 2 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|------|
| | 0727 | 0729 | 0574 | 0551 | 0559 | 0558 | 0557 | 0450 | 0772 | 0778 | 0665 | 0448 | 0442 | 0663 | 0669 | 0553 | 0662 | 0771 | 0554 | 0334 | | | 0776 | 0668 | 0773 | 0667 |
| | 0169 | 0112 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0333 | 0666 | 0666 | 0666 | 0666 | 0666 | 0666 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Congestion | | | | | | | | | | | | | | | | | | | | | 4 | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | 1 | 1 | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | 2 | 2 | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | 2 | 2 | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Thymus Atrophy | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lobular | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolus, Degeneration | 3 | 3 | 4 | | | | 4 | | | | 4 | 2 | 3 | 3 | | | | 4 | 4 | 4 | 4 | 4 | | | | 3 | 4 | 3 | 3 | 3 |
| Alveolus, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Foot, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue
X .. Lesion present A .. Autolysis precludes evaluation
I .. Insufficient tissue BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|
| | 0724 | 0541 | 0558 | 0444 | 0689 | 0461 | 0678 | 0072 | 0052 | 0072 | 0066 | 0049 | 0061 | 0066 | 0048 | 0063 | 0072 | 0056 | 0066 | 0058 | | 0072 | 0047 | 0065 | 0059 | 0065 |
| ANIMAL ID | 06032 | 06041 | 06044 | 06055 | 06051 | 06071 | 06077 | 06077 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 5 | 5 | 4 | 6 | 4 | 6 | 7 | 5 | 7 | 6 | 4 | 6 | 6 | 6 | 4 | 6 | 7 | 5 | 6 | 5 | 7 | 4 | 6 | 5 | 0 |
| | 2 | 4 | 1 | 4 | 8 | 9 | 5 | 2 | 5 | 2 | 6 | 9 | 1 | 4 | 8 | 6 | 3 | 2 | 6 | 6 | 8 | 2 | 7 | 0 | 9 | 1 |
| | 4 | 1 | 8 | 4 | 9 | 1 | 8 | 8 | 9 | 5 | 9 | 9 | 0 | 4 | 7 | 9 | 1 | 7 | 7 | 4 | 9 | 7 | 5 | 5 | 1 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 0 | 0 | 0 | 0 | 0 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 |
| | 3 | 4 | 4 | 4 | 5 | 5 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 9 |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 37 |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 33 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | A | + | A | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | 31 |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Angiectasis | 2 | | | | 2 | | | | 2 | | | | | | | | | | | | | | | | | | 5 2.0 |
| Basophilic Focus | X | | X | X | X | | | | | | | | | | X | | | | | | | | | | | | 9 |
| Clear Cell Focus | X | | | X | | | | X | X | | | | | | | | | | | | | | | | | | 10 |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Degeneration, Cystic | 2 | | | | | | | | 1 | | | | | | | 1 | 1 | | 1 | 1 | | | 2 | 2 | | 20 1.4 | |
| Fatty Change | | | | | | | | | | | 1 | | 4 | | | | | | 1 | | | | | 3 | | | 6 2.5 |
| Hematopoietic Cell Proliferation | | | 1 | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Hemorrhage | | | | | | | | | 1 | | | | | | | | | | | | | | | | | | 2 1.5 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 |
| Infiltration Cellular, Mononuclear Cell | 1 | | | 1 | 2 | 1 | 1 | 2 | | 1 | | | | 1 | | 1 | | | 1 | 2 | 1 | 1 | 1 | 1 | 1 | | 33 1.2 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 3.3 |
| Vacuolization Cytoplasmic | | | | | 1 | | | | | | | | | | | | 1 | | | | | 1 | | | | | 12 1.6 |
| Bile Duct, Hyperplasia | 2 | | | 1 | | 1 | | 3 | | | | | | 1 | | | | | | | | | | | | | 12 1.6 |
| Biliary Tract, Cyst Multilocular | | | | | | | | X | | | | | | | | | | | | | | | | | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|------|-----|---|----|
| | 0724 | 0541 | 0558 | 0444 | 0668 | 0449 | 0665 | 0772 | 0558 | 0778 | 0669 | 0445 | 0661 | 0664 | 0446 | 0663 | 0772 | 0557 | 0664 | 0558 | | 0774 | 0446 | 0665 | 0559 | 0771 | | | |
| ANIMAL ID | 06032 | 06041 | 06044 | 06055 | 06051 | 06077 | 06077 | 06077 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06077 | 06077 | 06077 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | | | | |
| Biliary Tract, Fibrosis | | | | | | | 1 | 2 | | | | | | 1 | 1 | 1 | | | 1 | | | | | 1 | 12 | | | | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 1.3 | | | | |
| Mesentery | | | + | | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Pancreas | | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | | | |
| Basophilic Focus | | | | | X | | | | | | | | | | | | | | | | | | | | 2 | | | | |
| Cyst Multilocular | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Infiltration Cellular, Lymphocyte | | | 2 | | 2 | 1 | | 2 | 1 | | 1 | 2 | 2 | | 2 | 1 | | 2 | 2 | 2 | | 2 | 2 | 1 | 37 | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1.6 | | | | |
| Lipomatosis | | | | | 3 | | | | | 2 | 2 | 2 | | | | | | 3 | | | | | | 3 | 9 | | | | |
| Mineralization | | | | | 2 | | | | | | | | | | | | | | | | | | | | 2.0 | | | | |
| Pigmentation | | | | | 1 | 1 | | 1 | 1 | | | | 1 | 1 | | | 2 | | 1 | 1 | | 1 | 1 | 1 | 28 | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | 4 | | 1.2 | | | | |
| Acinus, Degeneration | | | 4 | | 2 | 2 | | 3 | 2 | | 2 | 2 | 2 | | | | 1 | 1 | 4 | 3 | 3 | 2 | | 1 | 2 | 3 | 1 | 3 | 41 |
| Salivary Glands | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | | |
| Stomach, Forestomach | | | | | + | + | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 37 | | | | |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 2 | 3.5 | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 3 | 3.7 | | |
| Stomach, Glandular | | | | | + | + | + | + | + | | + | A | + | + | + | + | + | + | + | + | + | + | + | + | 35 | | | | |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2 | 3.5 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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Lab: NCTR

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RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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| Necrosis | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 | | | | | |
| Islets, Pancreatic | + | | | | | | | | | | | | | | | | | | | | 48 | | | | | | |
| Parathyroid Gland
Hyperplasia | + + + + + + + + + + + + + M + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | 49 | 23 2.0 | | | | | |
| Pituitary Gland
Angiectasis | + | | | | | | | | | | | | | | | | | | | | 49 | 9 3.9 | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | | | | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | 10 | | | | | |
| Pars Distalis, Degeneration | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | | | | |
| Pars Distalis, Hyperplasia | 1 2 2 2 | | | | | | | | | | | | | | | | | | | | 15 | 2.4 | | | | | |
| Pars Distalis, Hypertrophy | 2 2 | | | | | | | | | | | | | | | | | | | | 3 | 2.0 | | | | | |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | 1 | | | | | |
| Thyroid Gland
Ultimobranchial Cyst | + + + + + + A + + + A + + + + + + + + + + A + | | | | | | | | | | | | | | | | | | | | 45 | 2 | | | | | |
| C-cell, Hyperplasia | 1 1 1 | | | | | | | | | | | | | | | | | | | | 19 | 1.5 | | | | | |
| Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | 3 | | | | | |
| Follicular Cell, Hyperplasia | 3 3 3 | | | | | | | | | | | | | | | | | | | | 10 | 2.7 | | | | | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | 1 |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-------|
| Coagulating Gland
Atrophy | + | | | | | | | | | | | | | | | | | | | | 50 | 1 2.0 |
|------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-------|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|------|------|-----|
| | 0724 | 0541 | 0558 | 0444 | 0668 | 0449 | 0665 | 0778 | 0552 | 0779 | 0666 | 0449 | 0660 | 0664 | 0447 | 0663 | 0772 | 0556 | 0664 | 0558 | | 0774 | 0445 | 0660 | 0559 | 0775 | 0441 | 0665 | 0551 | |
| ANIMAL ID | 06032 | 06041 | 06044 | 06051 | 06062 | 06071 | 06077 | 06079 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | | | |
| Fibrosis | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Inflammation, Chronic Active Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Exfoliated Germ Cell | | | 3 | | | | | | | | | 1 | | | | | | | 2 | | | | | | | 2 | | 13 | 1.8 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | 1 | 2.0 | |
| Hypospermia | | | | | | | | | 4 | | | | | | | | | 4 | | | 4 | | | | | | | 7 | 4.0 | |
| Infiltration Cellular, Lymphocyte | 1 | | | 1 | 1 | | | | | 1 | | | | | | | | | 2 | | | 1 | 1 | | | | | 14 | 1.2 | |
| Polyarteritis | | | | | | 1 | | | | | | | | | | | | | | | | | | | 3 | | | 4 | 1.8 | |
| Fat Pad, Epididymal | + | | | | | | | | | + | | | | | | | | + | | | + | | | | | | | 4 | | |
| Inflammation, Chronic Active | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Mineralization | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Necrosis | 4 | | | | | | | | | 4 | | | | | | | | 4 | | | 4 | | | | | | | 4 | 4.0 | |
| Preputial Gland | | | | | + | | | | | + | + | | + | | + | + | | + | | + | | | | + | | | | 19 | | |
| Atrophy | | | | 4 | | | | | | | | | | | | | | | | 2 | | | | | | | | 3 | 3.3 | |
| Hyperkeratosis | | | | | | | | | | 4 | | | | | | 4 | | | | | | | | | | | | 5 | 3.8 | |
| Inflammation, Suppurative | | | | | | | | | | 4 | | 4 | | | 4 | 4 | | | | | | | | 4 | | | | 13 | 3.5 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Duct, Dilatation | | | | | | | | | | 4 | 4 | | 4 | | 4 | 4 | | 4 | | | | | | 3 | | | | 15 | 3.7 | |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Cyst, Mucinous | | | | | | | | | | | | | | | | | | | | | | | | | | X | | 5 | | |
| Fibrosis | | | | 4 | | | | | | | | | | | 4 | | | | | | 2 | | | 2 | 2 | | | 8 | 2.6 | |
| Infiltration Cellular, Lymphocyte | 1 | | | 1 | 4 | 1 | | 1 | 1 | 1 | | | | | 1 | 3 | | 1 | | | 2 | 1 | 2 | 2 | | | 27 | 1.6 | | |
| Inflammation, Suppurative | 1 | | 1 | 1 | 4 | | 2 | 2 | 3 | 2 | 2 | | 2 | 2 | 1 | 1 | 4 | 1 | 3 | | 2 | 3 | 2 | 3 | 3 | | 42 | 2.1 | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Experiment Number: 10034 - 04
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|--------|
| | 0724 | 0541 | 0558 | 0444 | 0668 | 0449 | 0665 | 0772 | 0558 | 0772 | 0669 | 0446 | 0664 | 0668 | 0447 | 0663 | 0772 | 0556 | 0664 | 0577 | | 0446 | 0665 |
| ANIMAL ID | 06032 | 06041 | 06044 | 06051 | 06062 | 06071 | 06077 | 06079 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Atrophy | | | 2 | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Fibrosis | | | | | 4 | | | | | 2 | | 2 | | | 3 | | | 3 | 3 | | | | 10 2.8 |
| Infiltration Cellular, Lymphocyte | | | | | 3 | 1 | | 1 | | | | 2 | | 2 | | 1 | | 2 | 3 | | | | 16 1.8 |
| Inflammation, Suppurative | | | 1 | | | | | | | | | | | | 4 | | | | 3 | | | | 8 2.1 |
| Mineralization | 2 | | | | | | | | | | | | | | | | | | 2 | | | | 2 2.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Epithelium, Hyperplasia | | | | | | | 2 | | 2 | | | | 1 | 2 | | 2 | | | | | 1 | 1 | 16 2.1 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | A | + | 47 |
| Atrophy | | | 2 | | 4 | | | | | | | | | | | | | | 3 | | | 3 | 5 3.0 |
| Fibrosis | | | | | 4 | | | | | | | | | | | | | | | | | | 2 4.0 |
| Infiltration Cellular, Lymphocyte | | | | | 2 | | | | | | | | | | | | | | | | | | 1 2.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | 2 | | | 4 2.8 |
| Lumen, Dilatation | | | | | | | | | | | | | | | 2 | | | | | | | | 3 3.0 |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Aspermia | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Edema | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Polyarteritis | 2 | | 1 | | 2 | 2 | 1 | | | | | | | | | | | 3 | | | | 4 | 14 1.9 |
| Seminiferous Tubule, Degeneration | 2 | 1 | 2 | | | 1 | 1 | 2 | 4 | | 3 | | 2 | 1 | | | | 4 | 3 | 2 | 4 | 1 | 36 2.2 |
| Seminiferous Tubule, Dilatation | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hypocellularity | | | | | | | | | | | 3 | | | | | | | 3 | | 3 | | | 4 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

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2 Year Animals

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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
7
2
4 | 0
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1 | 0
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8 | 0
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4 | 0
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| ANIMAL ID | 0
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4 | 0
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9
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1 | 0
7
9
8
2 | 0
7
9
8
3 | 0
7
9
9
2 |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 3 4 3 4 3.5 |
| Lymph Node | + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | | 15 |
| Iliac, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Iliac, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Inguinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 4 4.0 |
| Inguinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 4 4.0 |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 4 4.0 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 3 2.5 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 4 4.0 |
| Mediastinal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 3 3.7 |
| Mediastinal, Infiltration Cellular, Mast Cell | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Mediastinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Pancreatic, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 4 4.0 |
| Renal, Degeneration, Cystic | 3 | | | | | | | | | | | | | | | | | | | | | | | | 4 4 6 3.7 |
| Renal, Hemorrhage | 3 | | | | | | | | | | | | | | | | | | | | | | | | 4 3 3 3.0 |
| Renal, Infiltration Cellular, Plasma Cell | 4 | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Lymph Node, Mandibular | + + + + + | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 3 3.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 3 4 5 3.6 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 4 3 5 3.8 |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 3 1 3.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 3 1 3.0 |
| Spleen | + | | | | | | | | | | | | | | | | | | | | | | | | 49 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|
| | 0724 | 0751 | 0758 | 0744 | 0766 | 0744 | 0766 | 0777 | 0755 | 0776 | 0766 | 0744 | 0766 | 0766 | 0744 | 0766 | 0777 | 0755 | 0766 | 0757 | 0744 | 0766 | 0755 | 0766 | 0759 | | 0751 |
| ANIMAL ID | 06032 | 06641 | 06642 | 06651 | 06652 | 06771 | 06772 | 06773 | 06774 | 06775 | 06776 | 06777 | 06778 | 06779 | 06791 | 06792 | 06793 | 06794 | 06795 | 06796 | 06797 | 06798 | 06799 | 06991 | 06992 | 06993 | |
| Axon, Degeneration | | | | | 1 | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Peripheral Nerve, Sciatic | | + | | | + | | | | + | | | | | | + | | | | | | | | | | | | 6 |
| Peripheral Nerve, Tibial | | + | | | + | | | | + | | | | | | + | | | | | | | | | | | | 6 |
| Spinal Cord, Cervical | | + | | | + | | | | + | | | | | | + | | | | | | | | | | | | 6 |
| Spinal Cord, Lumbar | | + | | | + | | | | + | | | | | | + | | | | | | | | | | | | 6 |
| Axon, Degeneration | | 1 | | | 2 | | | | | | | | | | 1 | | | | | | | | | | | | 5 1.2 |
| Spinal Cord, Thoracic | | + | | | + | | | | + | | | | | | + | | | | | | | | | | | | 6 |
| Axon, Degeneration | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | 1 1.0 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | + | + | + | + | + | + | + | + | | + | + | + | + | + | + | + | | + | + | + | | + | + | + | | 40 |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Infiltration Cellular, Histiocyte | | | 2 | | 4 | | | 2 | | | | | | 1 | | | | | 1 | 1 | | 1 | 1 | | | 14 1.7 | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 1.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Nose | | + | + | + | + | + | + | | + | | + | + | + | + | + | + | | + | + | + | | + | + | + | | 37 | |
| Autolysis | | | | | | | | | | | | | | | 4 | | | | | | | | | | 4 | | 5 4.0 |
| Fibrous Osteodystrophy | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Bisphenol A

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|------|---|----|-----|-----|
| | 0724 | 0541 | 0558 | 0444 | 0689 | 0461 | 0658 | 0778 | 0525 | 0729 | 0669 | 0499 | 0610 | 0664 | 0487 | 0631 | 0727 | 0567 | 0664 | 0589 | | 0727 | 0475 | 0605 | 0591 | | | | |
| ANIMAL ID | 06032 | 06041 | 06042 | 06051 | 06052 | 06071 | 06072 | 06077 | 06079 | 06091 | 06092 | 06093 | 06094 | 06095 | 06099 | 06102 | 06105 | 06107 | 06109 | 06112 | 06117 | 06118 | 06119 | 06121 | | | | | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 2.0 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | 1 | 3.0 | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | 2 | | 4 | | | | | | | 3 | 2 | 3 | 4 | | | | 3 | 4 | | | | | 3 | 15 | 2.8 | |
| Posterior To Upper Incisor, Malformation | | | | | | | | | | | | | | | X | | | | | | | | | | | | | 1 | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | 2 | | | | | | | | | | | | | | | | 4 | | | | | | 5 | 2.6 | |
| Respiratory Epithelium, Hyperplasia, Goblet Cell | | | | | | | 2 | | | | | | | | | | | | | | | | | | | 2 | 5 | 2.2 | |
| Transitional Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Trachea | | | | + | + | + | + | + | A | | + | | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 32 | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Ear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Eye | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Cataract | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|---|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|---|---|---|-----|-----|
| Kidney | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 2 | 4.0 | |
| Casts Protein | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Infiltration Cellular, Polymorphonuclear | | | | 1 | | 3 | | | | | | | | | | | | | | | 2 | | | | | 1 | 2 | 8 | 1.5 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 250.0StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|--------|
| | 0724 | 0541 | 0558 | 0444 | 0669 | 0441 | 0668 | 0775 | 0552 | 0778 | 0559 | 0666 | 0449 | 0663 | 0447 | 0661 | 0775 | 0556 | 0664 | 0557 | | 0445 | 0660 | 0779 | 0551 | |
| ANIMAL ID | 06032 | 06041 | 06042 | 06051 | 06052 | 06071 | 06072 | 06079 | 06091 | 06092 | 06093 | 06094 | 06095 | 06096 | 06097 | 06098 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | 06099 | |
| Mineralization | | | 3 | | | | | | | 3 | | | | | | | | | | | | | | | 2 3.0 | |
| Nephropathy | 4 | | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 4 | 1 | 3 | 4 | 2 | 3 | 3 | 4 | 2 | 4 | 2 | 1 | 3 | 2 | 4 | 4 | 48 3.1 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | | 2 3.0 |
| Polycystic Kidney | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cortex, Cyst | X | | | | X | | | | | | | | | | | X | X | X | X | | | | | | | 12 |
| Pelvis, Dilatation | | | | | | | | | | 3 | | | | | | | | | | | | | | | | 2 2.5 |
| Pelvis, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Renal Tubule, Cyst | X | | | X | X | X | | | | X | X | | | | | X | | X | | | X | X | X | | | 21 |
| Renal Tubule, Hyperplasia, Atypical | | | | | 3 | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Transitional Epithelium, Hyperplasia | 2 | | 2 | | 4 | 1 | 1 | | | | | | | | | | | | | | | | | 2 | 2 | 12 1.8 |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 4 3.8 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | |
|--|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | | 0727 | 0678 | 0728 | 0556 | 0777 | 0664 | 0479 | 0749 | 0656 | 0472 | 0773 | 0772 | 0772 | 0566 | 0635 | 0459 | 0473 | 0764 | 0775 | 0578 | | 0559 |
| ANIMAL ID | | 01851 | 01852 | 01853 | 01854 | 01855 | 01856 | 01857 | 01858 | 01859 | 01860 | 01861 | 01862 | 01863 | 01864 | 01865 | 01866 | 01867 | 01868 | 01869 | 01870 | | 01871 |

Mesentery
Fat, Necrosis

Oral Mucosa

Pancreas
Cyst Multilocular
Infiltration Cellular, Lymphocyte
Lipomatosis
Pigmentation
Polyarteritis
Thrombosis
Acinus, Degeneration
Artery, Mineralization

Stomach, Forestomach
Inflammation, Chronic Active
Epithelium, Hyperplasia

Stomach, Glandular
Mineralization
Epithelium, Hyperplasia

CARDIOVASCULAR SYSTEM

Blood Vessel
Mineralization

Heart
Cardiomyopathy

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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Experiment Number: 10034 - 04

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | |
|--|-------|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|-------|-------|-------|
| ANIMAL ID | | 0727 | 0678 | 0728 | 0556 | 0777 | 0664 | 0749 | 0472 | 0756 | 0446 | 0528 | 0779 | 0730 | 0722 | 0567 | 0455 | 0433 | 0704 | 0675 | 0770 | | 0551 | 0758 | 0594 |
| 01851 | 01185 | 01156 | 01188 | 01166 | 01177 | 01144 | 01188 | 01188 | 01188 | 01100 | 01144 | 01144 | 01144 | 01144 | 01144 | 01144 | 01144 | 01144 | 01144 | 01144 | 01166 | 01166 | 01166 | 01166 | 01166 |

Metaplasia, Osseous Mineralization
Thrombosis
Endocardium, Hyperplasia

2 1 3 3 4 4

ENDOCRINE SYSTEM

Adrenal Cortex
Accessory Adrenal Cortical Nodule
Angiectasis
Congestion
Degeneration, Cystic
Hyperplasia
Hypertrophy
Necrosis
Vacuolization Cytoplasmic

+
3 3 4 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2

Adrenal Medulla
Degeneration, Cystic
Hyperplasia

+
3 1 4 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 1 2 2 2

Islets, Pancreatic
Hyperplasia

+
4

Parathyroid Gland
Hyperplasia

+
4 2 2 3 2 2 4 2 2 3 3 4 2 2 4 4

Pituitary Gland
Angiectasis
Fibrosis

+
4 4 4

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|
| | 0727 | 0678 | 0728 | 0556 | 0777 | 0661 | 0449 | 0746 | 0552 | 0466 | 0758 | 0779 | 0770 | 0566 | 0635 | 0459 | 0443 | 0761 | 0674 | 0775 | | | 0558 | 0559 |
| | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 851 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|
| Hemorrhage | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Cyst | X | | | | | | | | | | | | X | X | X | | | | | X | | X | | |
| Pars Distalis, Cyst Multilocular | | X | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | 1 | 2 | 2 | | | | 4 | 2 | 3 | 3 | | | | | | | | | | 3 | 2 | 3 | | |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Ultimobranchial Cyst | | X | | | X | | | | | | | | | | | | | | | X | | | | |
| C-cell, Hyperplasia | 2 | | 2 | 1 | | 3 | | 1 | 2 | | 1 | 1 | 1 | | | | | | 2 | | 1 | | | |
| Follicular Cell, Hyperplasia | | | | | 2 | 3 | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumen, Dilatation | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Exfoliated Germ Cell | 2 | | | | | | | | | | | | | | | | | | 3 | 3 | 2 | | 3 | 3 | | | |
| Hypospermia | 2 | | 3 | | 4 | | | 4 | | | | | | 4 | | 3 | | 3 | | | | | | 3 | | | |
| Infiltration Cellular, Lymphocyte | 2 | | | | | | | | | 1 | | | | 1 | | | | | | 1 | 1 | 1 | | | | | |
| Polyarteritis | 1 | | | | | | | | 2 | | | | | | | | | 1 | | | | | | 1 | | | |
| Preputial Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | + | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | + | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | + | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | + | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | + | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | | |
|--|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | | |
| | | 7 | 6 | 7 | 5 | 7 | 7 | 6 | 4 | 7 | 4 | 5 | 7 | 7 | 7 | 5 | 6 | 4 | 5 | 4 | 7 | | 6 | 7 | 7 | 5 |
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 2 | 7 | 2 | 5 | 2 | 0 | 5 | 9 | 2 | 6 | 0 | 2 | 3 | 2 | 6 | 3 | 5 | 5 | 3 | 0 | 4 | 2 | 0 | 1 | 9 |
| | | 7 | 8 | 8 | 6 | 7 | 7 | 1 | 9 | 6 | 6 | 8 | 9 | 0 | 7 | 7 | 2 | 4 | 9 | 3 | 1 | 9 | 5 | 5 | 8 | 4 |
| | F1 2500.StDose M | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | ANIMAL ID | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 |
| | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |

Cyst
Hyperkeratosis
Inflammation, Suppurative 2 3 3 2 4
Necrosis
Duct, Dilatation 4 3 3 4 2 4

Prostate, Dorsal/lateral Lobe +
Atrophy
Cyst, Mucinous X X X X
Fibrosis 2 3 1 1
Hemorrhage 4
Infiltration Cellular, Lymphocyte 1 1 1 2 2 2 2 1 1 1 1 3 1 2 1 1 1 1
Inflammation, Suppurative 2 2 3 3 2 3 2 2 2 2 1 1 2 1 3 3 1 1 3 1 1 2 2 2
Mineralization 1 1

Prostate, Ventral Lobe +
Atrophy 2
Fibrosis 2 1 2 2
Hemorrhage 4
Infiltration Cellular, Lymphocyte 1 1 1 1 3 1 1 2 1
Inflammation, Suppurative 2 2 1 1 4
Mineralization 3 2
Polyarteritis 1
Epithelium, Hyperplasia 2 1 2 2 2 2 2

Seminal Vesicle +
Atrophy 3
Fibrosis
Inflammation, Chronic 1
Inflammation, Chronic Active 2

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|
| | 0727 | 0678 | 0728 | 0556 | 0727 | 0771 | 0645 | 0479 | 0059 | 0046 | 0048 | 0052 | 0073 | 0077 | 0079 | 0056 | 0043 | 0055 | 0043 | 0074 | | | 0062 | 0077 | 0055 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 |
| | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | |
| | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 |
| Renal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | + | + |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 3 | 4 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4 |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | | + | + |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | | | | | | | | | | | | | | | | | | | | | | | | + | M |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelial Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | | | + | + |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolus, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | 4 | 3 |
| Alveolus, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2 |

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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0727 | 0678 | 0728 | 0556 | 0777 | 0661 | 0449 | 0749 | 0456 | 0772 | 0332 | 0767 | 0562 | 0645 | 0459 | 0033 | 0044 | 0044 | 0044 | 0044 | 0066 | 0066 | 0066 | 0066 | 0055 | | |
| | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | 0185 | |

Vacuolization Cytoplasmic

2

Brain, Cerebellum

+ +

Brain, Cerebrum

+ +

Gliosis
 Hemorrhage
 Necrosis
 Pigmentation
 Thrombosis
 Ventricle, Dilatation

1

Nerve Trigeminal

+ + + +

Axon, Degeneration

1 1 1 1

Peripheral Nerve, Sciatic

+ + + +

Peripheral Nerve, Tibial

+ + + +

Spinal Cord, Cervical

+ + + +

Axon, Degeneration

2

Spinal Cord, Lumbar

+ + + +

Axon, Degeneration

4 1 + 2

Spinal Cord, Thoracic

+ + + +

Axon, Degeneration

2

RESPIRATORY SYSTEM

Lung

+ +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0727 | 0678 | 0728 | 0556 | 0777 | 0664 | 0479 | 0052 | 0046 | 0078 | 0045 | 0077 | 0077 | 0077 | 0056 | 0064 | 0055 | 0043 | 0070 | 0064 | 0077 | 0077 | 0055 | 0055 | 0059 | | |
| | 0185 | 0118 | 0118 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0144 | 0144 | 0144 | 0144 | 0144 | 0144 | 0144 | 0144 | 0144 | 0144 | 0144 | 0166 | 0166 | 0166 | 0166 | 0166 | | |
| | 8851 | 8861 | 8861 | 8872 | 8871 | 8872 | 8881 | 8882 | 8891 | 8892 | 8891 | 8892 | 8891 | 8892 | 8891 | 8892 | 8891 | 8892 | 8891 | 8892 | 8891 | 8892 | 8891 | 8892 | 8891 | | |

Congestion 4
 Fibrosis 2
 Hemorrhage
 Infiltration Cellular, Histiocyte 2 2 1 1 1 1
 Inflammation, Granulomatous 2
 Inflammation, Chronic Active 1
 Alveolar Epithelium, Hyperplasia

Nose +
 Exudate 4
 Fibrous Osteodystrophy 2 3
 Foreign Body X
 Inflammation, Suppurative 2
 Inflammation, Chronic Active 4
 Olfactory Epithelium, Accumulation, Hyaline Droplet 2 2 4 3 2 2 3
 Respiratory Epithelium, Accumulation, Hyaline Droplet 2 2 2 2
 Respiratory Epithelium, Hyperplasia, Goblet Cell 2 2
 Respiratory Epithelium, Ulcer
 Trachea + + + + + A + + + + + + + + + + + + +

SPECIAL SENSES SYSTEM

Eye
 Cornea, Inflammation, Chronic Active
 Cornea, Mineralization

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | 077 | 068 | 078 | 055 | 072 | 070 | 065 | 049 | 074 | 045 | 077 | 072 | 077 | 056 | 064 | 055 | 044 | 076 | 077 | 057 | 055 | 059 | 054 | males
(cont...) |
| | ANIMAL ID | 01851 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | 01188 | |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | |
| Casts Protein | | | | | | | | 1 | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | | | 1 | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | 4 | | | | | | | | 4 | 4 | |
| Nephropathy | 4 | 4 | 4 | 4 | 2 | 3 | | 2 | 4 | 1 | 2 | 4 | 3 | 4 | 3 | 4 | | 4 | 4 | 4 | 4 | 4 | 4 | 3 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | 2 | 4 | | | | | |
| Polycystic Kidney | | | | | | | | | | | | 4 | | | | | | | | | | | | |
| Cortex, Cyst | | X | X | | | | X | | | | | | X | | X | | X | X | | | | | | |
| Pelvis, Infiltration Cellular, Lymphocyte | | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Renal Tubule, Cyst | X | X | X | | | | X | X | | X | | X | X | | | X | | X | | | | X | | |
| Transitional Epithelium, Hyperplasia | | | 1 | | | | 2 | | | | | 2 | 1 | | 2 | | 2 | 2 | | | 2 | | | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumen, Dilatation | | | | | | | | | | | | | | | + | | | | | | | + | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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Experiment Number: 10034 - 04
 Test Type: CHRONIC
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 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | 0708 | 0725 | 0768 | 0779 | 0777 | 0767 | 0777 | 0777 | 0744 | 0776 | 0715 | 0757 | 0766 | 0744 | 0756 | 0766 | 0766 | 0772 | 0777 | 0777 | 0767 | 0766 | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | ANIMAL ID | 06192 | 06221 | 06611 | 06621 | 06805 | 06885 | 06886 | 06888 | 06888 | 06888 | 06888 | 06888 | 06888 | 06888 | 06888 | 06888 | 06888 | 06888 | 06888 | 06888 | 06888 | 06888 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| Esophagus | + | + | + | | | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 35 | |
| Intestine Large, Cecum | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Intestine Large, Colon | + | A | + | | | + | + | + | | + | + | + | A | + | + | + | + | A | + | + | | | | 29 | |
| Intestine Small, Ileum | + | A | + | | | + | + | + | | + | + | + | A | + | + | + | + | A | + | + | | | | 26 | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | | | | | | | | | 3 | | | 2 | | | | | | | | | | | 4 2.3 | |
| Basophilic Focus | | X | X | X | X | | | | | | X | X | | | | | | | X | | | | | 11 | |
| Clear Cell Focus | X | | | X | | | | | | X | | | | | | | | | X | | X | | | 10 | |
| Cyst | | | | | | | | | | | X | | | | | | | | | | | | | 1 | |
| Degeneration, Cystic | 1 | 2 | 2 | 3 | | 2 | 1 | 2 | | | 2 | 2 | 1 | | | | | | 1 | | 1 | 1 | 2 | 2 | 30 1.6 |
| Fatty Change | | | | | | | | | | | | | | | | | | | 4 | | | | | 1 4.0 | |
| Hematopoietic Cell Proliferation | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | 3 1.0 | |
| Hepatodiaphragmatic Nodule | X | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Infiltration Cellular, Mononuclear Cell | 2 | | 1 | 2 | 1 | 2 | | | | 1 | 1 | 2 | 1 | | | 1 | 2 | | 1 | 1 | | 1 | 1 | 1 | 33 1.3 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 | |
| Vacuolization Cytoplasmic | 2 | | | | | | 1 | | | | 2 | | | | | | | 2 | | 1 | | | | 12 1.5 | |
| Bile Duct, Hyperplasia | 3 | | | | 1 | | | | 1 | 3 | | | 1 | | | 1 | | | 1 | | | 3 | 1 | 20 1.8 | |
| Biliary Tract, Cyst | | | | | | | | | X | | | | | | | X | | | | | | | | 2 | |
| Biliary Tract, Fibrosis | 2 | 1 | | | | 1 | | | | | | 1 | | | 1 | | | | | | 2 | 1 | | 17 1.3 | |
| Hepatocyte, Necrosis | | | | | | | | | | | | 1 | | | | | | | | | | 1 | | 2 1.0 | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
| | 0708 | 0705 | 0622 | 0628 | 0709 | 0707 | 0601 | 0706 | 0707 | 0704 | 0708 | 0605 | 0704 | 0603 | 0502 | 0708 | 0603 | 0604 | 0508 | 0603 | | 0708 | 0707 | 0707 | 0606 |
| ANIMAL ID | 06192 | 06202 | 06001 | 06011 | 06012 | 08051 | 08052 | 08061 | 08062 | 08071 | 08072 | 08081 | 08082 | 08091 | 08092 | 09011 | 09012 | 09021 | 09022 | 09031 | 09032 | 09041 | 09042 | 09051 | 09052 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|--|--|--|--|---|---|--|--|---|--|--|--|--|---|--|--|--|--|--|--|--|--|--|---|-------|
| Metaplasia, Osseous Mineralization | | | | | | 2 | 4 | | | | | | | | 4 | | | | | | | | | | 4 | 3 2.0 |
| Thrombosis | X | | | | | | | | | X | | | | | | | | | | | | | | | | 2 |
| Endocardium, Hyperplasia | | | | | | | | | | 4 | | | | | | | | | | | | | | | | 1 4.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | X | | | | | 1 | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 2 3.0 | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Degeneration, Cystic | 1 | | | | | | | | | | | | | | | | | | | | | | | | 3 1.3 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | 2 | | | 2 | 5 1.6 | |
| Hypertrophy | 2 | | 1 | | | | | | | | | | | | | | | | | | | | | | 3 1.7 | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 | |
| Vacuolization Cytoplasmic | 2 | | 1 | 2 | | | | | | | | | | 2 | | | | | | | 1 | 2 | | 2 | 18 1.7 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Hyperplasia | | | | | | | | 1 | | | 3 | | | | 2 | 1 | | | | | 1 | 4 | 1 | 1 | 4 | 17 1.9 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Hyperplasia | 2 | 1 | 3 | | | 3 | 4 | | 2 | 3 | 4 | | | 4 | 1 | 2 | | 1 | | | 2 | | | 4 | 30 2.7 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | | | | | | | 3 | 4 | | | 4 | | | 4 | | | 4 | 4 | | | 4 | | 10 3.9 | | |
| Fibrosis | | | | | | | | 3 | | | | | | | | | | | | | | | | | 1 3.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0708 | 0705 | 0622 | 0628 | 0709 | 0707 | 0601 | 0600 | 0702 | 0704 | 0608 | 0605 | 0703 | 0604 | 0505 | 0706 | 0603 | 0609 | 0702 | 0708 | | 0707 | 0606 |
| ANIMAL ID | 06192 | 06202 | 06222 | 06212 | 06081 | 06088 | 06088 | 06088 | 06088 | 06088 | 06088 | 06088 | 06088 | 06088 | 06089 | 06089 | 06089 | 06089 | 06089 | 06089 | 06089 | 06089 | 06089 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | 2 | | 1 | 2.0 |
| Pars Distalis, Cyst | | | X | | | | | | X | | | | | X | | | | X | X | | | | | 11 | |
| Pars Distalis, Cyst Multilocular | | | | | | | | | | | | | | | | | | | | | | X | | 2 | |
| Pars Distalis, Hyperplasia | 2 | 1 | 2 | 2 | 2 | | | | | 3 | | | | | | | | | 2 | 4 | | | 1 | 19 | 2.3 |
| Pars Distalis, Hypertrophy | | | | 2 | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Pars Intermedia, Cyst | X | | | | | | | | | X | | | | | | | | | | | | | | 2 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Ultimobranchial Cyst | | | | | | | | | X | | | X | | | | | | | | | | | | 5 | |
| C-cell, Hyperplasia | | | 2 | 1 | | 2 | 1 | | 1 | | | | | | 2 | | | | 1 | | | | | 18 | 1.5 |
| Follicular Cell, Hyperplasia | 3 | | | | | | | | | | | 3 | | | 2 | 2 | | | | | | | | 6 | 2.5 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | 48 | |
| Atrophy | | | | | | | | | | | | | | | | | | 3 | | | | | 3 | 2 | 3.0 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Exfoliated Germ Cell | | | 2 | | | 1 | 4 | 1 | 2 | | 1 | | | | 1 | | | 2 | 3 | | | 1 | 3 | 17 | 2.2 |
| Hypospermia | 4 | | | | 4 | 4 | 4 | | | | | 4 | | 4 | | | | 4 | | 4 | | | | 16 | 3.6 |
| Infiltration Cellular, Lymphocyte | | | | | 2 | | | | | | 1 | 1 | | | | | 1 | 1 | 1 | | | | | 12 | 1.2 |
| Polyarteritis | | | | | | | | | | 1 | | | | | | | | | | | | | | 5 | 1.2 |
| Preputial Gland | + | + | + | | + | + | | | | | | | | | | | | | + | + | | + | + | 15 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|--------|
| | 0708 | 0705 | 0622 | 0728 | 0779 | 0777 | 0676 | 0777 | 0774 | 0747 | 0661 | 0515 | 0776 | 0644 | 0558 | 0633 | 0747 | 0666 | 0727 | 0777 | | 0677 | 0666 | 0727 | 0777 | 0676 |
| ANIMAL ID | 0619 | 0620 | 0601 | 0611 | 0615 | 0605 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 | 0608 |
| Cyst | | | | | | X | | | | | | | | | | | | | | | | | | | | 1 |
| Hyperkeratosis | 4 | | | | | | | | | | | | | | | | | | 4 | | | | | 4 | | 3 4.0 |
| Inflammation, Suppurative | 4 | 1 | 4 | | 4 | | | | | | | | | | | | | | 3 | 4 | | | 4 | 4 | | 13 3.2 |
| Necrosis | | | | | | 3 | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Duct, Dilatation | 4 | 2 | 4 | | 4 | | | | | | | | | | | | | | 4 | 3 | | | 3 | 4 | | 14 3.4 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | 3 | | | 1 3.0 |
| Cyst, Mucinous | | | | | | X | | | | | X | | | | | | | | | | | | | | | 7 |
| Fibrosis | | | | | 3 | | 2 | 2 | | | 2 | | 2 | | | | | 3 | 3 | | | | | | 2 | 12 2.2 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Infiltration Cellular, Lymphocyte | 1 | 2 | | 2 | 1 | 2 | | 2 | 2 | | 1 | 2 | | 2 | 2 | | | 2 | 2 | 1 | | 1 | 1 | 1 | | 35 1.5 |
| Inflammation, Suppurative | 2 | 2 | 1 | 1 | 2 | 2 | 1 | 2 | 3 | | 1 | 2 | | 2 | 2 | | | 3 | 3 | 2 | 3 | 3 | 2 | | 1 | 44 2.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Atrophy | | | | | | | | | | | | | 3 | | | | | | | | | | | 2 | | 4 2.5 |
| Fibrosis | | | | 1 | 1 | | | | | | 2 | | | | | | | 3 | | 2 | 2 | | 3 | | | 12 1.9 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Infiltration Cellular, Lymphocyte | | 2 | | 1 | 1 | | | | 1 | 1 | | 1 | | 2 | | | 1 | 2 | | 2 | | | | | | 20 1.4 |
| Inflammation, Suppurative | | | | 1 | | | | | | | 1 | | | 2 | | | | | | 2 | | | | 1 | | 10 1.7 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | 2 | | | 3 2.3 |
| Polyarteritis | | | | | | | | | | | 1 | | | | | | | | | | | | | | | 2 1.0 |
| Epithelium, Hyperplasia | | | 2 | | 2 | 2 | | | | | 2 | | | 2 | | | | | | 2 | 2 | | | | | 14 1.9 |
| Seminal Vesicle | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + | + | + | + | + | 48 |
| Atrophy | | | 3 | | | | | | | | | | 3 | | | | | 3 | | | | | | 3 | | 5 3.0 |
| Fibrosis | | | | | | | | | 4 | | | | | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Inflammation, Chronic Active | | | | | | | | | 3 | | | | | | | | | | | | | | | | | 2 2.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
| | 0708 | 0705 | 0622 | 0628 | 0729 | 0707 | 0601 | 0700 | 0702 | 0408 | 0703 | 0605 | 0105 | 0707 | 0606 | 0402 | 0508 | 0603 | 0609 | 0702 | | 0708 | 0707 | 0606 |
| ANIMAL ID | 06192 | 06221 | 06220 | 06211 | 06015 | 06085 | 06082 | 06081 | 06082 | 06087 | 06081 | 06082 | 06081 | 06082 | 06081 | 06082 | 06081 | 06082 | 06081 | 06082 | 06081 | 06082 | 06081 | 06082 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|--|--|---|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Epithelium, Hyperplasia | | | 3 | | | | | | | | 3 | | | | | | | | | | | | | | 4 | 2.5 |
| Lumen, Dilatation | | | | | | | | | | | 2 | | | | | | | | | | | | | | 1 | 2.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Testes | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Polyarteritis | 3 | 2 | 4 | | 2 | 4 | 4 | 2 | 2 | 1 | 3 | 3 | | 2 | 4 | | | | | 4 | | 1 | 3 | 28 | 2.7 | |
| Seminiferous Tubule, Degeneration | 4 | 2 | 3 | 2 | 4 | 4 | 4 | | 3 | 1 | 2 | 4 | | 4 | 1 | 1 | 2 | 4 | | 4 | 2 | 2 | 1 | 3 | 40 | 2.7 |
| Seminiferous Tubule, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Hypocellularity | | | | | | | | | | | | 3 | | | | | | | | | | 3 | | 2 | 3.0 |
| Myeloid Cell, Hyperplasia | | | | | | | | | | 4 | | | 3 | | | | | | | 4 | | | | 5 | 3.6 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|--|---|---|--|---|---|---|---|---|---|--|---|---|--|---|---|---|---|---|---|----|-----|-----|
| Lymph Node | + | + | + | | + | + | | + | + | | + | | | | + | + | | + | + | + | | + | + | 27 | | |
| Brachial, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Brachial, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Brachial, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Inguinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | 4 | | | 1 | 4.0 | |
| Inguinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | 4 | | | 1 | 4.0 | |
| Lumbar, Degeneration, Cystic | 4 | | | | | | | | | 4 | | 4 | | | | | | | | 3 | | 3 | | 4 | 9 | 3.8 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 3 | | 5 | 3.6 | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | 3 | 4 | | | | | | | 4 | 4 | 4 | | 9 | 3.6 | |
| Mediastinal, Degeneration, Cystic | | | | | | | | | 3 | | | | | | | | | | | | | | | 1 | 3.0 | |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | |
| Mediastinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Pancreatic, Degeneration, Cystic | | | 2 | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Pancreatic, Hyperplasia, Lymphoid | | | 2 | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Renal, Degeneration, Cystic | 4 | 3 | 4 | | 4 | 4 | | 4 | | | 4 | 4 | | | | | | | | 3 | | | 4 | 16 | 3.8 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|---------------|
| | 0708 | 0705 | 0625 | 0728 | 0779 | 0776 | 0776 | 0776 | 0776 | 0776 | 0776 | 0776 | 0776 | 0776 | 0776 | 0776 | 0776 | 0776 | 0776 | 0776 | | 0776 |
| ANIMAL ID | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | 06192 | |
| Renal, Hemorrhage | | 4 | | | | 3 | | | | | | | | | | | | | 3 | | | 5 2.8 |
| Renal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | 3 | | | | | | | 1 3.0 |
| Renal, Infiltration Cellular, Plasma Cell | 2 | | 4 | | | | | 4 | | | | 4 | 3 | | | | | | | | | 5 3.4 |
| Renal, Pigmentation | | | | | | | | | | | | | | | | | | | 3 | | | 2 3.0 |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | 13 |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | 5 3.4 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 9 3.4 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | 10 3.5 |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | 2 |
| Spleen | | | | | | | | | | | | | | | | | | | | | | 49 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | 24 2.1 |
| Hyperplasia, Lymphoid | 2 | | | | | | | | | | | | | | | | | | | | | 6 2.0 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | 24 1.9 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Thymus | | | | | | | | | | | | | | | | | | | | | | 48 |
| Atrophy | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 46 4.0 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Epithelial Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|--|---|---|---|--|---|---|---|---|---|---|---|---|---|--|--|---|---|---|-----------|---|---------------|
| Mammary Gland | | | | | | | | | | | | | | | | | | | | | | 49 | | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Alveolus, Degeneration | 3 | 4 | | 4 | 4 | 3 | | 4 | | 3 | 4 | | | 4 | 4 | 4 | | | 3 | 4 | 4 | 3 | 2 | 33 3.5 |
| Alveolus, Dilatation | | | | | | | | | | | 3 | | 2 | | | | | | | | | 2 | | 6 2.2 |
| Duct, Dilatation | | | | | | 1 | | 3 | 3 | | | 2 | | | 2 | | | | | 2 | 3 | | | 11 2.4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|
| | 0708 | 0705 | 0622 | 0722 | 0728 | 0700 | 0601 | 0700 | 0702 | 0408 | 0700 | 0605 | 0104 | 0505 | 0700 | 0600 | 0402 | 0508 | 0603 | 0609 | | 0702 | 0702 | 0702 | 0702 | 0606 | 0605 |
| ANIMAL ID | 06192 | 06202 | 06200 | 06201 | 06201 | 06201 | 06205 | 06206 | 06206 | 06206 | 06207 | 06207 | 06208 | 06208 | 06208 | 06208 | 06208 | 06208 | 06209 | 06209 | 06209 | 06209 | 06209 | 06209 | 06209 | 06209 | 06209 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|--|--|--|---|--|--|--|--|--|--|--|---|---|---|---|--|--|--|--|--|--|--|--|--|--|-------|
| Skin | + | + | | | | + | | | | | | | | + | + | | | | | | | | | | | | | 17 |
| Cyst Epithelial Inclusion | | X | | | | X | | | | | | | | | | X | | | | | | | | | | | | 5 |
| Edema | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | | 1 4.0 |
| Inflammation, Granulomatous Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | 4 | | | | | | | | | | | 1 4.0 |
| Epithelium, Foot, Hyperplasia | | | | | | 3 | | | | | | | | | | | | | | | | | | | | | | 3 3.7 |
| Foot, Edema | | | | | | | | | | | | | | | | 4 | 4 | | | | | | | | | | | 6 4.0 |
| Foot, Fibrosis | | | | | | | | | | | | | | | | 4 | 3 | | | | | | | | | | | 6 3.7 |
| Foot, Inflammation, Chronic Active | | | | | | | | | | | | | | | | 4 | 4 | | | | | | | | | | | 6 4.0 |
| Foot, Necrosis | | | | | | | | | | | | | | | | 4 | 4 | | | | | | | | | | | 6 4.0 |
| Foot, Ulcer | | | | | | | | | | | | | | | | 4 | 4 | | | | | | | | | | | 6 4.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 2 | |
| Rib, Hyperostosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 5 3.4 |
| Osteopetrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 3.0 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | | | | + | 2 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Compression | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 6 3.0 |
| Gliosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 2.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 2500.StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| | 0708 | 0705 | 0622 | 0625 | 0728 | 0729 | 0700 | 0701 | 0702 | 0703 | 0704 | 0705 | 0706 | 0707 | 0708 | 0709 | 0710 | 0711 | 0712 | 0713 | 0714 | 0715 | 0716 | 0717 | | 0718 | 0719 | 0720 | 0721 | 0722 | 0723 | 0724 | 0725 | 0726 | 0727 | 0728 | 0729 | 0730 | 0731 | 0801 | 0802 | 0803 | 0804 | 0805 | 0806 | 0807 | 0808 | 0809 | 0810 | 0811 | 0812 | 0813 | 0814 | 0815 | 0816 | 0817 | 0818 | 0819 | 0820 | 0821 | 0822 | 0823 | 0824 | 0825 | 0826 | 0827 | 0828 | 0829 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebellum | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebrum | + | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Gliosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thrombosis | | | | | | | | | | | | | | | | | | | | | | | | | X 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ventricle, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 3 2.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nerve Trigeminal | + | | | | | | | | | | | | | | | | | | | | | | | | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 7 1.1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Sciatic | + | | | | | | | | | | | | | | | | | | | | | | | | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Tibial | + | | | | | | | | | | | | | | | | | | | | | | | | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Cervical | + | | | | | | | | | | | | | | | | | | | | | | | | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Lumbar | + | | | | | | | | | | | | | | | | | | | | | | | | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 6 2.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Thoracic | + | | | | | | | | | | | | | | | | | | | | | | | | 8 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Lung | + | | | | | | | | | | | | | | | | | | | | | | | | 41 |
|------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|------|------|
| | 0535 | 0666 | 0664 | 0577 | 0672 | 0672 | 0676 | 0678 | 0571 | 0660 | 0675 | 0478 | 0772 | 0772 | 0622 | 0722 | 0777 | 0777 | 0478 | 0555 | | | 0122 | 0778 | 0588 | 0122 |
| | 0200 | 0200 | 0200 | 0200 | 0200 | 0200 | 0200 | 0200 | 0200 | 0200 | 0404 | 0404 | 0404 | 0404 | 0404 | 0404 | 0404 | 0404 | 0606 | 0606 | 0606 | 0606 | 0606 | 0606 | 0606 | 0606 |
| | 0011 | 0011 | 0022 | 0033 | 0033 | 0044 | 0044 | 0055 | 0055 | 0077 | 0101 | 0101 | 0101 | 0101 | 0101 | 0101 | 0101 | 0101 | 0202 | 0202 | 0202 | 0202 | 0303 | 0303 | 0303 | 0303 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|---|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|--|---|---|---|
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | X | | | | | | | | | | | X | | | | X | | |
| Infiltration Cellular, Mononuclear Cell | | | | 2 | 3 | 2 | 1 | 2 | | 2 | 1 | 1 | | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | 2 | | | 2 | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | 2 | | 1 | 2 | | | 1 | | | | 2 | 1 | | | 1 | | | | 1 | | | 1 | |
| Bile Duct, Hyperplasia | | | 2 | 2 | 4 | 3 | | | | | | | | 2 | | | | 3 | 1 | 2 | | | | | | |
| Biliary Tract, Cyst Multilocular | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Biliary Tract, Fibrosis | | | 1 | | | 2 | | | | 1 | | | | 1 | 2 | 1 | 1 | 2 | | 2 | 1 | | | | 1 | 1 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oval Cell, Hyperplasia | | | | | | | | | 1 | | | | | | | | | 2 | | | | | | | | |

Mesentery
 Fat, Abscess
 Fat, Foreign Body
 Fat, Inflammation, Granulomatous
 Fat, Necrosis

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | 2 | 1 | | | 3 | 2 | 2 | 3 | | | | 2 | | 1 | 3 | | 1 | 2 | | | 1 | 3 | | | 1 | |
| Inflammation, Chronic Active | | | | 1 | | | | | | | | | | | 2 | | | | | | | | | | | |
| Lipomatosis | | | 4 | | | | | | | 3 | 3 | 2 | | 2 | | 3 | | 4 | | 4 | 2 | | | | | |
| Pigmentation | 2 | 1 | | | 2 | 1 | 1 | 2 | | 1 | | 1 | | 1 | 2 | 1 | | 1 | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | 4 | | | |
| Acinar Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acinus, Degeneration | 2 | 1 | | 1 | 4 | 3 | 3 | 3 | 4 | 3 | | 4 | | 2 | 4 | | 1 | 3 | 2 | | 2 | 2 | | 1 | 2 | |
| Artery, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | |

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 + .. Tissue examined microscopically
 X .. Lesion present
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 CAS Number: 80-05-7
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|
| | 0535 | 0663 | 0664 | 0577 | 0667 | 0667 | 0676 | 0676 | 0557 | 0667 | 0667 | 0556 | 0677 | 0677 | 0666 | 0772 | 0772 | 0777 | 0777 | 0448 | 0551 | 0667 | 0777 | 0552 | | | 0778 | 0552 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 |
| | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 4 | 4 | 4 | 5 | 1 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|--|--|---|---|---|---|---|---|---|--|---|--|---|--|---|---|---|---|--|--|---|---|---|
| Stomach, Forestomach Inflammation, Chronic Active Necrosis | + | + | + | + | + | | | + | + | + | + | + | + | | | + | | + | | + | + | + | + | | | + | | |
| Ulcer Epithelium, Hyperplasia | 4 | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Stomach, Glandular Mineralization Epithelium, Hyperplasia | + | + | + | + | + | | | + | + | + | + | + | + | A | | + | | + | | | | | | | | | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart Cardiomyopathy | 1 | 3 | 1 | 2 | 4 | 2 | 2 | 3 | | 3 | 4 | 1 | 3 | 2 | 2 | 1 | 3 | 1 | 2 | 4 | 1 | 2 | | | 4 | 2 | 2 | |
| Metaplasia, Osseous Mineralization | | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thrombosis | | | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pericardium, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pericardium, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex Accessory Adrenal Cortical Nodule | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | males
(cont...) |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--------------------|
| | 0535 | 0666 | 0664 | 0577 | 0672 | 0762 | 0671 | 0767 | 0556 | 0670 | 0788 | 0510 | 0675 | 0722 | 0492 | 0722 | 0675 | 0777 | 0777 | 0488 | 0559 | 0122 | 0728 | 0580 | |
| ANIMAL ID | 02011 | 02021 | 02031 | 02041 | 02051 | 02061 | 02071 | 02081 | 02091 | 02101 | 02111 | 02121 | 02131 | 02141 | 02151 | 02161 | 02171 | 02181 | 02191 | 02201 | 02211 | 02221 | 02231 | 02241 | |
| Hyperplasia | | | | 1 | | | 3 | | | | | | | | | | | | 1 | | | | | | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | 2 | | | | |
| Vacuolization Cytoplasmic | 3 | 3 | 2 | 1 | 2 | | 1 | | 2 | 2 | 2 | | | | 2 | | | | 2 | 1 | | | 2 | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | M | + | + | + | + | |
| Hyperplasia | | 2 | | | | | | | 2 | | | | | | | | | | | | 1 | | 2 | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | M | + | + | M | + | + | + | + | + | + | + | + | M | + | + | |
| Hyperplasia | 2 | | 1 | 1 | | 1 | | 2 | 2 | | 3 | 1 | | 1 | 3 | | 4 | | | 4 | | 3 | | 4 | 2 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | | | | | 4 | | | | | 4 | | | | | 4 | | | | | | | | |
| Pars Distalis, Cyst | | | | X | | | | | | | | | | | | | | | | X | | X | | X | |
| Pars Distalis, Cyst Multilocular | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | 2 | | | | | | | | | 3 | | 2 | | | 4 | | 1 | | 1 | | 2 | | 4 | 2 | |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | 2 | | | | | | | | | | | | 2 | |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Thyroid Gland | + | + | A | + | + | + | + | + | + | + | + | A | + | M | + | + | + | + | + | + | + | + | + | + | |
| Ultimobranchial Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-cell, Hyperplasia | 3 | 4 | | 2 | | 2 | | | | 1 | | | 1 | | | | | 1 | | | | | | 2 | |
| Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Follicular Cell, Hyperplasia | | | | | 2 | | | | | | | | | | | | | | | | 2 | | | 2 | |

GENERAL BODY SYSTEM

Tissue NOS

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
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RATS MALE
F1 25000StDose M | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | | |
|--|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--------------------|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | 0 | |
| | | 5 | 6 | 6 | 5 | 6 | 7 | 6 | 7 | 5 | 6 | 7 | 5 | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 5 | 1 | 7 | 5 | |
| | | 3 | 6 | 4 | 7 | 7 | 2 | 1 | 0 | 8 | 5 | 2 | 0 | 9 | 2 | 2 | 2 | 2 | 0 | 2 | 1 | 8 | 5 | 2 | 2 | 8 |
| | | 5 | 6 | 2 | 4 | 2 | 6 | 8 | 7 | 1 | 0 | 6 | 8 | 3 | 7 | 9 | 6 | 5 | 1 | 7 | 9 | 8 | 9 | 2 | 0 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | |
| | | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 4 | 4 | 5 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 4 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 | |

Epithelium, Hyperplasia

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Prostate, Ventral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | 3 | 3 | | | | | | | | | | | 3 | | | | | | | | 3 | | | |
| Edema | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | 4 | | | | 3 | | | | | | | | | | 3 | |
| Infiltration Cellular, Lymphocyte | | | | | | 1 | | | | | | | 2 | 1 | 1 | 1 | 1 | | | | | 1 | 1 | |
| Inflammation, Suppurative | | | | | | | | | | | | | 3 | 1 | | 1 | 1 | | | | | | 1 | |
| Inflammation, Chronic Active | | | | | | | | 4 | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | 2 | | 2 | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | 3 | | | |
| Epithelium, Hyperplasia | | | | | | 2 | 2 | | 2 | | 2 | | | | 2 | | 1 | | | | 4 | | 2 | 2 |
| Seminal Vesicle | + | + | A | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | 3 | | | | | | | | | | | | | | | | | | | | 4 | | | |
| Edema | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | 4 | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | 4 | | | 3 | | | | | 3 | | | | | 2 | | | | 3 | |
| Lumen, Dilatation | | 2 | | | | | | | | | | 4 | | | | 2 | | | | | | | | |
| Testes | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Abscess | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | 3 | | | | 1 | 3 | | | | 2 | | 4 | 1 | | 4 | | 1 | | 2 |
| Seminiferous Tubule, Degeneration | 4 | | 2 | | 4 | | 1 | | | 3 | 3 | | | | 1 | 1 | 1 | 1 | 4 | 2 | 3 | 1 | 1 | |
| Seminiferous Tubule, Dilatation | 3 | | | | | | | | | | | | | | 4 | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

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RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|------|------|
| | 0535 | 0666 | 0664 | 0577 | 0672 | 0668 | 0767 | 0767 | 0556 | 0675 | 0671 | 0080 | 0085 | 0022 | 0020 | 0099 | 0022 | 0022 | 0077 | 0077 | 0044 | 0055 | 0011 | 0077 | | | 0055 | 0022 |
| Hypocellularity | | | | | | | | 3 | | | | | | | | | | | | | | | | | | | | |
| Myeloid Cell, Hyperplasia | | | | 3 | | | | | | | 4 | | | | | | | | | | | | | | | | | 4 |
| Lymph Node | + | + | | | + | + | | | + | + | | | | | | | | | + | | | | | | | | | + |
| Brachial, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreatic, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | |
|--|-------------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS MALE | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| | F1 25000StDose M | 5 | 6 | 6 | 5 | 6 | 7 | 6 | 7 | 5 | 6 | 7 | 5 | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | | 5 | 1 | 7 |
| | ANIMAL ID | 3 | 6 | 4 | 7 | 7 | 2 | 1 | 0 | 8 | 5 | 2 | 0 | 9 | 2 | 2 | 2 | 0 | 2 | 1 | 8 | 5 | 2 | 2 | 8 |
| | | 5 | 6 | 2 | 4 | 2 | 6 | 8 | 7 | 1 | 0 | 6 | 8 | 3 | 7 | 9 | 6 | 5 | 1 | 7 | 9 | 8 | 9 | 2 | 8 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| | | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 4 | 4 | 5 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tarsal, Hyperostosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Compression | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Brain, Cerebellum | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebrum | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ventricle, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | males
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|--------------------|
| | 0535 | 0666 | 0664 | 0577 | 0672 | 0762 | 0761 | 0760 | 0558 | 0667 | 0756 | 0477 | 0772 | 0662 | 0722 | 0722 | 0722 | 0770 | 0771 | 0771 | 0488 | 0559 | 0122 | 0778 | 0580 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | | |
| | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 3 | 3 | 4 | 4 | 5 | | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | |

Peripheral Nerve, Tibial +
 Spinal Cord, Cervical +
 Spinal Cord, Lumbar +
 Axon, Degeneration 1
 Spinal Cord, Thoracic +
 Hemorrhage

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|--|---|---|---|---|---|---|--|---|--|---|---|---|---|---|---|---|--|---|---|
| Lung | + | + | + | + | + | | + | + | + | + | + | + | | + | | + | + | + | + | + | + | + | | + | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Nose | + | + | + | + | + | | + | + | + | + | + | + | | + | | + | | + | + | + | + | + | | + | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------------|
| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 6 | 6 | 5 | 6 | 7 | 6 | 7 | 5 | 6 | 7 | 5 | 4 | 7 | 7 | 6 | 7 | 7 | 4 | 5 | 1 | 7 | 5 | | |
| | 3 | 6 | 4 | 7 | 7 | 2 | 1 | 0 | 8 | 5 | 2 | 0 | 9 | 2 | 2 | 2 | 0 | 1 | 8 | 5 | 2 | 2 | 8 | | |
| | 5 | 6 | 2 | 4 | 2 | 6 | 8 | 7 | 1 | 0 | 6 | 8 | 3 | 7 | 9 | 6 | 5 | 1 | 7 | 9 | 8 | 9 | 2 | 0 | |
| SPRAGUE DAWLEY (NCTR) | | | | | | | | | | | | | | | | | | | | | | | | | |
| RATS MALE | | | | | | | | | | | | | | | | | | | | | | | | | |
| F1 25000StDose M | | | | | | | | | | | | | | | | | | | | | | | | | |
| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | |
| | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 1 | 1 | 3 | 3 | 4 | 4 | 5 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | males
(cont...) |

Respiratory Epithelium, Hyperplasia, Goblet Cell

2

Respiratory Epithelium, Ulcer

3

Transitional Epithelium, Accumulation, Hyaline Droplet

3

Upper Molar, Fibrosis

Trachea

+ + A + + + + + + + A + + + + + +

SPECIAL SENSES SYSTEM

Eye Retina, Degeneration

+ 3

Zymbal's Gland Cyst, Squamous

+ X

URINARY SYSTEM

Kidney Accumulation, Hyaline Droplet

+ + + + + + + + + + + A + + + + + + + + + + +

Casts Protein

4

Fibrosis

1

Hemorrhage

4

Infiltration Cellular, Polymorphonuclear

2

2

2

Mineralization

2

4

Necrosis

4

Nephropathy

2 2 4 1 4 2 3 2 4 4 2 2 4 3 4 4 2 4 4 1 4

Polyarteritis

X

X

X

X

X

X

Cortex, Cyst

X

X

X

X

X

Pelvis, Dilatation

2

1

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

1-4 .. Lesion qualified as:

X .. Lesion present

A .. Autolysis precludes evaluation

1) Minimal 3) Moderate

I .. Insufficient tissue

BLANK .. Not examined microscopically

2) Mild 4) Marked

Experiment Number: 10034 - 04

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Date Report Requested: 08/16/2017

Test Type: CHRONIC

Bisphenol A

Time Report Requested: 10:21:03

Route: GAVAGE

CAS Number: 80-05-7

First Dose M/F: 09/25/12 / 09/25/12

Species/Strain: RATS/Sprague Dawley (NCTR)

2 Year Animals

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | males
(cont...) | | | |
|---|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------------|---|---|---|
| ANIMAL ID | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | 0 | |
| | | 5 | 6 | 6 | 5 | 6 | 7 | 6 | 7 | 5 | 6 | 7 | 5 | 4 | 7 | 7 | 6 | 7 | 7 | 7 | 4 | 5 | 1 | 7 | 5 |
| | | 3 | 6 | 4 | 7 | 7 | 2 | 1 | 0 | 8 | 5 | 2 | 0 | 9 | 2 | 2 | 2 | 0 | 2 | 1 | 8 | 5 | 2 | 2 | 8 |
| | | 5 | 6 | 2 | 4 | 2 | 6 | 8 | 7 | 1 | 0 | 6 | 8 | 3 | 7 | 9 | 6 | 5 | 1 | 7 | 8 | 9 | 2 | 8 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 |
| | | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 4 | 4 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 | 2 | 1 | 2 | 1 |
| Renal Tubule, Cyst | | | | X | | X | | X | X | | | X | X | | X | | X | X | | | | X | X | X | |
| Renal Tubule, Dilatation | | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Renal Tubule, Hyperplasia, Atypical
Transitional Epithelium, Hyperplasia | | | | | | | | | 2 | | | 1 | | | | | 1 | 1 | | | | 3 | | | |
| Urinary Bladder | | | | | | | | | + | | | + | | | | | | | | | | + | | | |
| Hemorrhage | | | | | | | | | 3 | | | | | | | | | | | | | 4 | | | |
| Inflammation, Chronic Active | | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Lumen, Dilatation | | | | | | | | | 4 | | | 4 | | | | | | | | | | 4 | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | 078 | 0475 | 0493 | 0545 | 0715 | 0675 | 0328 | 0025 | 0054 | 0043 | 0060 | 0056 | 0059 | 0044 | 0063 | 0051 | 0072 | 0046 | 0022 | 0048 |
| | ANIMAL ID | 06352 | 06361 | 06362 | 06367 | 06368 | 06368 | 06368 | 06368 | 06368 | 06368 | 06368 | 06368 | 06368 | 06368 | 06368 | 06368 | 06368 | 06368 | 06368 | 06368 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---------------|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 36 | |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | A | A | + | 31 |
| Intestine Small, Duodenum | | | | | | | | | | | | | | | | | | | | | | 1 |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | A | A | + | 30 |
| Intestine Small, Jejunum | | | | | | | | | | | | | | + | + | | | | | | | 2 |
| Bacterium | | | | | | | | | | | | | | | X | | | | | | | 1 |
| Fibrosis | | | | | | | | | | | | | | | 4 | | | | | | | 1 4.0 |
| Foreign Body | | | | | | | | | | | | | | | X | | | | | | | 1 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | 4 | | | | | | | 1 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | 3 | | | | | | | 1 3.0 |
| Mineralization | | | | | | | | | | | | | | | 3 | | | | | | | 1 3.0 |
| Necrosis | | | | | | | | | | | | | | | 4 | | | | | | | 1 4.0 |
| Perforation | | | | | | | | | | | | | | | 4 | | | | | | | 1 4.0 |
| Ulcer | | | | | | | | | | | | | | | 4 | | | | | | | 1 4.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Angiectasis | | | | | | | | | | | | | | | 2 | | | | 1 | | | 3 1.7 |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | 5 |
| Cholangiofibrosis | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Clear Cell Focus | | | | | | | | | | X | | | | | | | | X | | | | 7 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | 1 |
| Deformity | | | | | | | | | | | | | | | | | | | | | | 1 |
| Degeneration, Cystic | 2 | 2 | | 1 | 2 | | | | | 1 | | | 2 | | | | 1 | 2 | | | | 18 1.8 |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 078 | 045 | 043 | 054 | 071 | 068 | 072 | 035 | 025 | 054 | 044 | 030 | 061 | 054 | 046 | 051 | 073 | 046 | 022 | 044 | |
| ANIMAL ID | 06352 | 06361 | 06362 | 06371 | 06812 | 06811 | 06822 | 06821 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | 06822 | |
| Hemorrhage | | | 4 | 4 | | | | | | | | | | | | | | | | | 2 4.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | X | | | | | | | | | | 5 |
| Infiltration Cellular, Mononuclear Cell | 2 | 2 | | | 2 | | 1 | | | 1 | | 2 | 1 | | 1 | 1 | | | 1 | 1 | 29 1.5 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | 1 | | | 1 1.0 |
| Inflammation, Chronic Active | | | 3 | | | | | | | | | | | | | | | | | | 1 3.0 |
| Polyarteritis | | 1 | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Vacuolization Cytoplasmic | | 2 | | | | | 1 | | | | | 1 | | | | | | | | 1 | 13 1.3 |
| Bile Duct, Hyperplasia | 4 | | 2 | | 2 | | | | | | | 2 | | | | | | 2 | | | 13 2.4 |
| Biliary Tract, Cyst Multilocular | | | X | | | | | | | | | | | | | | | | | | 1 |
| Biliary Tract, Fibrosis | 1 | | | | 2 | 2 | | | | | 1 | 2 | | 1 | | | | | | | 18 1.4 |
| Hepatocyte, Necrosis | | | 4 | | | | | | | | | | | | | | | 2 | | | 2 3.0 |
| Oval Cell, Hyperplasia | | | 2 | | | | | | | | | | | | | | | | | | 3 1.7 |
| Mesentery | | | | | | | | | | | + | | | | | | | | | + | 2 |
| Fat, Abscess | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Fat, Foreign Body | | | | | | | | | | | | | | | | | | | | X | 1 |
| Fat, Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Fat, Necrosis | | | | | | | | | | 4 | | | | | | | | | | 4 | 2 4.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 44 |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | X | 1 |
| Infiltration Cellular, Lymphocyte | 1 | 2 | 1 | | 3 | 1 | 2 | 1 | | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 2 | 2 | 2 | 32 1.7 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Lipomatosis | | 2 | | | | | 3 | | | | | | | 3 | | | | 3 | | | 13 2.9 |
| Pigmentation | | 2 | | | 2 | 1 | | 1 | | | 1 | | | | | 1 | 2 | | 2 | 2 | 21 1.4 |
| Polyarteritis | | 1 | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Acinar Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | 3 | | 1 3.0 |
| Acinus, Degeneration | 1 | 4 | | | 3 | 1 | 3 | 1 | | | 1 | 2 | | 3 | 2 | 1 | 2 | 3 | 2 | 2 | 34 2.3 |
| Artery, Mineralization | | | | | | | | | | | | | | 4 | | | | | | | 1 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 10034 - 04
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|-----------------|------|
| | 0728 | 0458 | 0493 | 0545 | 0715 | 0675 | 0738 | 0329 | 0054 | 0064 | 0053 | 0060 | 0065 | 0054 | 0064 | 0061 | 0054 | 0073 | 0046 | 0022 | | | 0044 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 06352 | |
| | 7 | 4 | 4 | 5 | 7 | 6 | 7 | 3 | 2 | 5 | 6 | 5 | 6 | 5 | 4 | 6 | 5 | 7 | 4 | 2 | 4 | 3352 | |
| | 8 | 5 | 3 | 5 | 5 | 5 | 8 | 9 | 4 | 0 | 0 | 8 | 1 | 4 | 6 | 5 | 1 | 7 | 6 | 5 | 1 | 252 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 5632 | |
| | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 6335 | |
| | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 5632 | |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 212 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 212 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

Stomach, Forestomach
 Inflammation, Chronic Active
 Necrosis
 Ulcer
 Epithelium, Hyperplasia

37
 2 3.0
 1 4.0
 1 4.0
 2 3.5

Stomach, Glandular
 Mineralization
 Epithelium, Hyperplasia

36
 2 4.0
 1 4.0

CARDIOVASCULAR SYSTEM

Blood Vessel
 Mineralization

46
 4 3.3

Heart
 Cardiomyopathy
 Metaplasia, Osseous
 Mineralization
 Polyarteritis
 Thrombosis
 Pericardium, Fibrosis
 Pericardium, Necrosis

46
 41 2.3
 2 1.5
 4 3.3
 1 1.0
 1
 1 2.0
 1 1.0

ENDOCRINE SYSTEM

Adrenal Cortex
 Accessory Adrenal Cortical Nodule
 Angiectasis
 Degeneration, Cystic

44
 2
 2 2.0
 1 3.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 04

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Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|-----------------|------|
| | 0728 | 0475 | 0493 | 0545 | 0715 | 0675 | 0738 | 0325 | 0255 | 0544 | 0443 | 0608 | 0561 | 0544 | 0616 | 0531 | 0727 | 0466 | 0226 | 0495 | | | 0748 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0635 | |
| | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 1 | 1 | 1 | 1 | 1 | 3352 | |
| | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 5612 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|-----|--|----|-----|
| Hyperplasia | 1 | | | | | | | | | | | | | | | | | | | | | 4 | 1.5 | | | |
| Hypertrophy | 1 | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | | |
| Vacuolization Cytoplasmic | 2 | 2 | 2 | | | | | | | | | | | | | | | | | 2 | 3 | 2 | 2 | | 20 | 2.0 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|----|----|-----|
| Adrenal Medulla | + | | | | | | | | | | | | | | | | | | | | | 44 | | |
| Hyperplasia | 2 2 | | | | | | | | | | | | | | | | | | | | 1 | | 11 | 1.9 |

| | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|
| Islets, Pancreatic | + | | | | | | | | | | | | | | | | | | | | | 44 | |
|--------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|--|

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-----|---------|---|----|-----|
| Parathyroid Gland | + | | | | | | | | | | | | | | | | | | | | | 43 | | | |
| Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | 3 1 | 3 4 2 2 | 1 | 23 | 2.3 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|--|---|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---------|-----|---|---|-----|-----|
| Pituitary Gland | + | | | | | | | | | | | | | | | | | | | | | 43 | | | | | |
| Angiectasis | 3 | | | | | | | | | | | | | | | | | | | | M | | 4 4 | A | 6 | 3.8 | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | X | | 5 | | |
| Pars Distalis, Cyst Multilocular | | | | | | | | | | | | | | | | | | | | | | | X | | 3 | | |
| Pars Distalis, Hyperplasia | 4 | | 1 | 4 | 3 | | | | | | | | | | | | | | | | | 2 2 1 2 | 3 | | 2 | 19 | 2.4 |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | | 4 | 2.0 |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | | X | | 2 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|-----|----|-----|---|---|---|----|-----|
| Thyroid Gland | + | | | | | | | | | | | | | | | | | | | | | 42 | | | | | | |
| Ultimobranchial Cyst | X | | | | | | | | | | | | | | | | | | | | X X | | X | 4 | | | | |
| C-cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 | 1 | 2 | 13 | 1.8 |
| Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | X | | 2 | | | |
| Follicular Cell, Hyperplasia | 3 | 3 | | | | | | | | | | | | | | | | | 3 | | 3 | 7 | 2.6 | | | | | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | + | 1 |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
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1-4 .. Lesion qualified as:
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| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|-----------------|
| | 0728 | 0475 | 0493 | 0545 | 0715 | 0675 | 0738 | 0325 | 0255 | 0544 | 0443 | 0560 | 0549 | 0646 | 0531 | 0727 | 0446 | 0229 | 0465 | 0428 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 063352 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 063352 | |
| | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 063352 | |
| | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 063352 | |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 063352 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 063352 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|--|---------------|
| Coagulating Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | 44 | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 2 3.5 |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | 2 | | | | | | | | | 1 2.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | 3 | | | | | | | | | 1 3.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Epididymis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Exfoliated Germ Cell | | | | | | | | | | | | | | 2 | | | | | | | | | | 9 1.7 |
| Hypospermia | 4 | 4 | | | | 4 | | | | | | | | | | | | | 4 | | | | | 8 4.0 |
| Infiltration Cellular, Lymphocyte | 1 | 2 | | | 1 | 1 | | | | | | | | | 1 | | 1 | | | | 1 | | | 13 1.1 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Spermatocele | X | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Preputial Gland | + | | | + | | | | | | | + | | | | | | + | | | + | | 12 | | |
| Hyperkeratosis | | | | | | | | | | | 4 | | | | | | 4 | | | | | | | 2 4.0 |
| Inflammation, Suppurative | 3 | | | 2 | | | | | | | 4 | | | | | | | | | | | | | 8 3.6 |
| Duct, Dilatation | 3 | | | 3 | | | | | | | 4 | | | | | | 3 | | | | | | | 10 3.5 |
| Prostate, Dorsal/lateral Lobe | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | | |
| Cyst, Mucinous | | | | | | | | | | X | | X | | | | | X | | | | | | | 4 |
| Edema | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Fibrosis | | | | | | | | | | | 2 | | | | 4 | | | | | | | | | 6 2.7 |
| Infiltration Cellular, Lymphocyte | 2 | | | | 1 | | 1 | | | | 1 | | | 1 | 2 | 4 | 2 | 1 | 1 | | 2 | | | 22 1.5 |
| Inflammation, Suppurative | 3 | | 1 | 2 | 2 | 3 | 3 | 2 | | 2 | 2 | 1 | 1 | 2 | 4 | 2 | 2 | 2 | 2 | 2 | | | | 38 2.1 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |

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|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|-----------------|
| | 0728 | 0478 | 0493 | 0545 | 0715 | 0675 | 0738 | 0329 | 0254 | 0540 | 0644 | 0530 | 0668 | 0549 | 0611 | 0573 | 0467 | 0642 | 0226 | 0445 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0635 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0332 | |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 0562 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 0212 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
| Epithelium, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Prostate, Ventral Lobe | + | | | | | | | | | | | | | | | | | | | | | 45 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | 4 3.0 |
| Edema | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Fibrosis | 2 | | | | | | | | | | | | | | | | | | | | | 8 3.3 |
| Infiltration Cellular, Lymphocyte | 2 2 | | | | | | | | | | | | | | | | | | | | | 18 1.7 |
| Inflammation, Suppurative | 2 | | | | | | | | | | | | | | | | | | | | | 9 2.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Mineralization | 3 | | | | | | | | | | | | | | | | | | | | | 4 2.3 |
| Polyarteritis | 2 | | | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Epithelium, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | 13 2.2 |
| Seminal Vesicle | + | | | | | | | | | | | | | | | | | | | | | 42 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | 3 3.0 |
| Edema | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Epithelium, Hyperplasia | 3 | | | | | | | | | | | | | | | | | | | | | 6 3.0 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | 4 2.8 |
| Testes | + | | | | | | | | | | | | | | | | | | | | | 45 |
| Abscess | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Polyarteritis | 2 | | | | | | | | | | | | | | | | | | | | | 16 2.2 |
| Seminiferous Tubule, Degeneration | 4 4 | | | | | | | | | | | | | | | | | | | | | 27 2.3 |
| Seminiferous Tubule, Dilatation | | | | | | | | | | | | | | | | | | | | | | 2 3.5 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | 45 |
|-------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-----|-----|-----|-----|-----|-----|-----|
| | 078 | 047 | 049 | 054 | 057 | 067 | 073 | 082 | 085 | 089 | 094 | 094 | 003 | 006 | 008 | 009 | 014 | 016 | 017 | 024 | | 024 | 044 | 048 | 051 | | | | | | |
| ANIMAL ID | 06352 | 06336 | 06333 | 06333 | 06331 | 06381 | 06381 | 06388 | 06388 | 06388 | 06388 | 06388 | 06388 | 06388 | 06388 | 06388 | 06388 | 06388 | 06388 | 06388 | 06388 | 06388 | 06388 | 06388 | | | | | | | |
| Hypocellularity | | | | | | | | | | | | | | | | | | | | | | | | 4 | 3.0 | | | | | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 4 | 5 | 3.8 | | | | | |
| Lymph Node | | | | + | | + | + | | | + | | | | | + | | | | | | + | | | | 16 | | | | | | |
| Brachial, Degeneration, Cystic | | | | | | | | 3 | | | | | | | | | | | | | | | | | | 1 | 3.0 | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | 4 | | | 3 | 3.3 | | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | | | |
| Mediastinal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | | | | |
| Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 | | | | |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | | | | |
| Mediastinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | | | |
| Mediastinal, Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | | | |
| Pancreatic, Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | | | |
| Pancreatic, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | | | |
| Pancreatic, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | | | |
| Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 3 | 6 | 3.5 | | |
| Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | | |
| Renal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | | | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 7 | 3.1 | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 | 3.3 | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 9 | 3.6 | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 45 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 12 | 2.4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 078 | 045 | 043 | 054 | 071 | 068 | 072 | 035 | 029 | 004 | 004 | 003 | 006 | 005 | 004 | 006 | 005 | 007 | 004 | 002 | |
| ANIMAL ID | 06352 | 06362 | 06362 | 06361 | 06812 | 06812 | 06812 | 06812 | 06812 | 06812 | 06812 | 06812 | 06812 | 06812 | 06812 | 06812 | 06812 | 06812 | 06812 | 06812 | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Hyperplasia, Lymphoid Necrosis | | | | | | | | | | | | | | | | | | | | | 2 | 3 | 2.0 |
| Pigmentation | 2 | 2 | 2 | | 2 | | | 1 | | 2 | | | 2 | | | | | 1 | 2 | 2 | 22 | 2.3 | |
| Polyarteritis | | 1 | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Thymus Atrophy | + | + | + | M | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | A | + | 42 | |
| Hemorrhage | 4 | 3 | 3 | | 4 | 4 | 4 | 4 | | 4 | 4 | 4 | 4 | | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 38 | 3.9 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 45 | |
| Alveolus, Degeneration | | 3 | 4 | 2 | | | 4 | | | | 4 | 4 | | 2 | | | 3 | 3 | | 4 | 23 | 3.3 |
| Alveolus, Dilatation | 2 | | | | | | | | | | | | | | | | | | 3 | | 7 | 2.3 |
| Duct, Dilatation | 2 | | | | 3 | 3 | 2 | | | | | | 2 | | | | | | 3 | | 12 | 2.7 |
| Skin | | | | + | + | | + | | | + | | + | + | | | | + | + | | | 16 | |
| Abscess | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Angiectasis | | | | | | | | | | | | | 4 | | | | | | | | 1 | 4.0 |
| Cyst Epithelial Inclusion | | | | X | | | | | | X | | X | | | | | X | | | | 10 | |
| Hemorrhage | | | | | | | | | | | | 4 | | | | | | | | | 1 | 4.0 |
| Inflammation, Suppurative | | | | | 2 | | | | | | | | | | | | | | | | 1 | 2.0 |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | 2 | 4.0 |
| Ulcer | | | | | 2 | | | | | | | | | | | | | | | | 1 | 2.0 |
| Epithelium, Foot, Hyperplasia | | | | | | | | | | | 4 | | | | | | | | | | 2 | 4.0 |
| Foot, Edema | | | | | | | | | | | 4 | | | | | | | | | | 1 | 4.0 |
| Foot, Fibrosis | | | | | | | | | | | 4 | | | | | | | | | | 2 | 4.0 |
| Foot, Inflammation, Chronic Active | | | | | | | | | | | 4 | | | | | | | | | | 2 | 4.0 |
| Foot, Necrosis | | | | | | | | | | | 4 | | | | | | | | | | 2 | 4.0 |
| Foot, Ulcer | | | | | | | | | | | 4 | | | | | | | | | | 2 | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------------|--|
| | 0728 | 0475 | 0493 | 0545 | 0715 | 0675 | 0738 | 0325 | 0255 | 0544 | 0443 | 0630 | 0594 | 0611 | 0465 | 0531 | 0727 | 0446 | 0229 | 0485 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 063352 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 06633337192 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 06633337192 | |
| | 0 | | | | | | | | | | | | | | | | | | | | | |

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
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| | 078 | 045 | 049 | 054 | 057 | 068 | 072 | 073 | 082 | 085 | 089 | 094 | 095 | 098 | 106 | 106 | 109 | 114 | 115 | 117 | | | 124 | 124 | 125 | 125 | 128 | 128 | 131 | 131 | 132 | 132 | 134 | 134 | 135 | 135 | 138 | 138 | 141 | 141 | 142 | 142 | 144 | 144 | 145 | 145 | 148 | 148 | 151 | 151 | 152 | 152 | 154 | 154 | 155 | 155 | 158 | 158 | 161 | 161 | 162 | 162 | 164 | 164 | 165 | 165 | 168 | 168 | 171 | 171 | 172 | 172 | 174 | 174 | 175 | 175 | 178 | 178 | 181 | 181 | 182 | 182 | 184 | 184 | 185 | 185 | 188 | 188 | 191 | 191 | 192 | 192 | 194 | 194 | 195 | 195 | 198 | 198 | 201 | 201 | 202 | 202 | 204 | 204 | 205 | 205 | 208 | 208 | 211 | 211 | 212 | 212 | 214 | 214 | 215 | 215 | 218 | 218 | 221 | 221 | 222 | 222 | 224 | 224 | 225 | 225 | 228 | 228 | 231 | 231 | 232 | 232 | 234 | 234 | 235 | 235 | 238 | 238 | 241 | 241 | 242 | 242 | 244 | 244 | 245 | 245 | 248 | 248 | 251 | 251 | 252 | 252 | 254 | 254 | 255 | 255 | 258 | 258 | 261 | 261 | 262 | 262 | 264 | 264 | 265 | 265 | 268 | 268 | 271 | 271 | 272 | 272 | 274 | 274 | 275 | 275 | 278 | 278 | 281 | 281 | 282 | 282 | 284 | 284 | 285 | 285 | 288 | 288 | 291 | 291 | 292 | 292 | 294 | 294 | 295 | 295 | 298 | 298 | 301 | 301 | 302 | 302 | 304 | 304 | 305 | 305 | 308 | 308 | 311 | 311 | 312 | 312 | 314 | 314 | 315 | 315 | 318 | 318 | 321 | 321 | 322 | 322 | 324 | 324 | 325 | 325 | 328 | 328 | 331 | 331 | 332 | 332 | 334 | 334 | 335 | 335 | 338 | 338 | 341 | 341 | 342 | 342 | 344 | 344 | 345 | 345 | 348 | 348 | 351 | 351 | 352 | 352 | 354 | 354 | 355 | 355 | 358 | 358 | 361 | 361 | 362 | 362 | 364 | 364 | 365 | 365 | 368 | 368 | 371 | 371 | 372 | 372 | 374 | 374 | 375 | 375 | 378 | 378 | 381 | 381 | 382 | 382 | 384 | 384 | 385 | 385 | 388 | 388 | 391 | 391 | 392 | 392 | 394 | 394 | 395 | 395 | 398 | 398 | 401 | 401 | 402 | 402 | 404 | 404 | 405 | 405 | 408 | 408 | 411 | 411 | 412 | 412 | 414 | 414 | 415 | 415 | 418 | 418 | 421 | 421 | 422 | 422 | 424 | 424 | 425 | 425 | 428 | 428 | 431 | 431 | 432 | 432 | 434 | 434 | 435 | 435 | 438 | 438 | 441 | 441 | 442 | 442 | 444 | 444 | 445 | 445 | 448 | 448 | 451 | 451 | 452 | 452 | 454 | 454 | 455 | 455 | 458 | 458 | 461 | 461 | 462 | 462 | 464 | 464 | 465 | 465 | 468 | 468 | 471 | 471 | 472 | 472 | 474 | 474 | 475 | 475 | 478 | 478 | 481 | 481 | 482 | 482 | 484 | 484 | 485 | 485 | 488 | 488 | 491 | 491 | 492 | 492 | 494 | 494 | 495 | 495 | 498 | 498 | 501 | 501 | 502 | 502 | 504 | 504 | 505 | 505 | 508 | 508 | 511 | 511 | 512 | 512 | 514 | 514 | 515 | 515 | 518 | 518 | 521 | 521 | 522 | 522 | 524 | 524 | 525 | 525 | 528 | 528 | 531 | 531 | 532 | 532 | 534 | 534 | 535 | 535 | 538 | 538 | 541 | 541 | 542 | 542 | 544 | 544 | 545 | 545 | 548 | 548 | 551 | 551 | 552 | 552 | 554 | 554 | 555 | 555 | 558 | 558 | 561 | 561 | 562 | 562 | 564 | 564 | 565 | 565 | 568 | 568 | 571 | 571 | 572 | 572 | 574 | 574 | 575 | 575 | 578 | 578 | 581 | 581 | 582 | 582 | 584 | 584 | 585 | 585 | 588 | 588 | 591 | 591 | 592 | 592 | 594 | 594 | 595 | 595 | 598 | 598 | 601 | 601 | 602 | 602 | 604 | 604 | 605 | 605 | 608 | 608 | 611 | 611 | 612 | 612 | 614 | 614 | 615 | 615 | 618 | 618 | 621 | 621 | 622 | 622 | 624 | 624 | 625 | 625 | 628 | 628 | 631 | 631 | 632 | 632 | 634 | 634 | 635 | 635 | 638 | 638 | 641 | 641 | 642 | 642 | 644 | 644 | 645 | 645 | 648 | 648 | 651 | 651 | 652 | 652 | 654 | 654 | 655 | 655 | 658 | 658 | 661 | 661 | 662 | 662 | 664 | 664 | 665 | 665 | 668 | 668 | 671 | 671 | 672 | 672 | 674 | 674 | 675 | 675 | 678 | 678 | 681 | 681 | 682 | 682 | 684 | 684 | 685 | 685 | 688 | 688 | 691 | 691 | 692 | 692 | 694 | 694 | 695 | 695 | 698 | 698 | 701 | 701 | 702 | 702 | 704 | 704 | 705 | 705 | 708 | 708 | 711 | 711 | 712 | 712 | 714 | 714 | 715 | 715 | 718 | 718 | 721 | 721 | 722 | 722 | 724 | 724 | 725 | 725 | 728 | 728 | 731 | 731 | 732 | 732 | 734 | 734 | 735 | 735 | 738 | 738 | 741 | 741 | 742 | 742 | 744 | 744 | 745 | 745 | 748 | 748 | 751 | 751 | 752 | 752 | 754 | 754 | 755 | 755 | 758 | 758 | 761 | 761 | 762 | 762 | 764 | 764 | 765 | 765 | 768 | 768 | 771 | 771 | 772 | 772 | 774 | 774 | 775 | 775 | 778 | 778 | 781 | 781 | 782 | 782 | 784 | 784 | 785 | 785 | 788 | 788 | 791 | 791 | 792 | 792 | 794 | 794 | 795 | 795 | 798 | 798 | 801 | 801 | 802 | 802 | 804 | 804 | 805 | 805 | 808 | 808 | 811 | 811 | 812 | 812 | 814 | 814 | 815 | 815 | 818 | 818 | 821 | 821 | 822 | 822 | 824 | 824 | 825 | 825 | 828 | 828 | 831 | 831 | 832 | 832 | 834 | 834 | 835 | 835 | 838 | 838 | 841 | 841 | 842 | 842 | 844 | 844 | 845 | 845 | 848 | 848 | 851 | 851 | 852 | 852 | 854 | 854 | 855 | 855 | 858 | 858 | 861 | 861 | 862 | 862 | 864 | 864 | 865 | 865 | 868 | 868 | 871 | 871 | 872 | 872 | 874 | 874 | 875 | 875 | 878 | 878 | 881 | 881 | 882 | 882 | 884 | 884 | 885 | 885 | 888 | 888 | 891 | 891 | 892 | 892 | 894 | 894 | 895 | 895 | 898 | 898 | 901 | 901 | 902 | 902 | 904 | 904 | 905 | 905 | 908 | 908 | 911 | 911 | 912 | 912 | 914 | 914 | 915 | 915 | 918 | 918 | 921 | 921 | 922 | 922 | 924 | 924 | 925 | 925 | 928 | 928 | 931 | 931 | 932 | 932 | 934 | 934 | 935 | 935 | 938 | 938 | 941 | 941 | 942 | 942 | 944 | 944 | 945 | 945 | 948 | 948 | 951 | 951 | 952 | 952 | 954 | 954 | 955 | 955 | 958 | 958 | 961 | 961 | 962 | 962 | 964 | 964 | 965 | 965 | 968 | 968 | 971 | 971 | 972 | 972 | 974 | 974 | 975 | 975 | 978 | 978 | 981 | 981 | 982 | 982 | 984 | 984 | 985 | 985 | 988 | 988 | 991 | 991 | 992 | 992 | 994 | 994 | 995 | 995 | 998 | 998 | 1001 | 1001 | 1002 | 1002 | 1004 | 1004 | 1005 | 1005 | 1008 | 1008 | 1011 | 1011 | 1012 | 1012 | 1014 | 1014 | 1015 | 1015 | 1018 | 1018 | 1021 | 1021 | 1022 | 1022 | 1024 | 1024 | 1025 | 1025 | 1028 | 1028 | 1031 | 1031 | 1032 | 1032 | 1034 | 1034 | 1035 | 1035 | 1038 | 1038 | 1041 | 1041 | 1042 | 1042 | 1044 | 1044 | 1045 | 1045 | 1048 | 1048 | 1051 | 1051 | 1052 | 1052 | 1054 | 1054 | 1055 | 1055 | 1058 | 1058 | 1061 | 1061 | 1062 | 1062 | 1064 | 1064 | 1065 | 1065 | 1068 | 1068 | 1071 | 1071 | 1072 | 1072 | 1074 | 1074 | 1075 | 1075 | 1078 | 1078 | 1081 | 1081 | 1082 | 1082 | 1084 | 1084 | 1085 | 1085 | 1088 | 1088 | 1091 | 1091 | 1092 | 1092 | 1094 | 1094 | 1095 | 1095 | 1098 | 1098 | 1101 | 1101 | 1102 | 1102 | 1104 | 1104 | 1105 | 1105 | 1108 | 1108 | 1111 | 1111 | 1112 | 1112 | 1114 | 1114 | 1115 | 1115 | 1118 | 1118 | 1121 | 1121 | 1122 | 1122 | 1124 | 1124 | 1125 | 1125 | 1128 | 1128 | 1131 | 1131 | 1132 | 1132 | 1134 | 1134 | 1135 | 1135 | 1138 | 1138 | 1141 | 1141 | 1142 | 1142 | 1144 | 1144 | 1145 | 1145 | 1148 | 1148 | 1151 | 1151 | 1152 | 1152 | 1154 | 1154 | 1155 | 1155 | 1158 | 1158 | 1161 | 1161 | 1162 | 1162 | 1164 | 1164 | 1165 | 1165 | 1168 | 1168 | 1171 | 1171 | 1172 | 1172 | 1174 | 1174 | 1175 | 1175 | 1178 | 1178 | 1181 | 1181 | 1182 | 1182 | 1184 | 1184 | 1185 | 1185 | 1188 | 1188 | 1191 | 1191 | 1192 | 1192 | 1194 | 1194 | 1195 | 1195 | 1198 | 1198 | 1201 | 1201 | 1202 | 1202 | 1204 | 1204 | 1205 | 1205 | 1208 | 1208 | 1211 | 1211 | 1212 | 1212 | 1214 | 1214 | 1215 | 1215 | 1218 | 1218 | 1221 | 1221 | 1222 | 1222 | 1224 | 1224 | 1225 | 1225 | 1228 | 1228 | 1231 | 1231 | 1232 | 1232 | 1234 | 1234 | 1235 | 1235 | 1238 | 1238 | 1241 | 1241 | 1242 | 1242 | 1244 | 1244 | 1245 | 1245 | 1248 | 1248 | 1251 | 1251 | 1252 | 1252 | 1254 | 1254 | 1255 | 1255 | 1258 | 1258 | 1261 | 1261 | 1262 | 1262 | 1264 | 1264 | 1265 | 1265 | 1268 | 1268 | 1271 | 1271 | 1272 | 1272 | 1274 | 1274 | 1275 | 1275 | 1278 | 1278 | 1281 | 1281 | 1282 | 1282 | 1284 | 1284 | 1285 | 1285 | 1288 | 1288 | 1291 | 1291 | 1292 | 1292 | 1294 | 1294 | 1295 | 1295 | 1298 | 1298 | 1301 | 1301 | 1302 | 1302 | 1304 | 1304 | 1305 | 1305 | 1308 | 1308 | 1311 | 1311 | 1312 | 1312 | 1314 | 1314 | 1315 | 1315 | 1318 | 1318 | 1321 | 1321 | 1322 | 1322 | 1324 | 1324 | 1325 | 1325 | 1328 | 1328 | 1331 | 1331 | 1332 | 1332 | 1334 | 1334 | 1335 | 1335 | 1338 | 1338 | 1341 | 1341 | 1342 | 1342 | 1344 | 1344 | 1345 | 1345 | 1348 | 1348 | 1351 | 1351 | 1352 | 1352 | 1354 | 1354 | 1355 | 1355 | 1358 | 1358 | 1361 | 1361 | 1362 | 1362 | 1364 | 1364 | 1365 | 1365 | 1368 | 1368 | 1371 | 1371 | 1372 | 1372 | 1374 | 1374 | 1375 | 1375 | 1378 | 1378 | 1381 | 1381 | 1382 | 1382 | 1384 | 1384 | 1385 | 1385 | 1388 | 1388 | 1391 | 1391 | 1392 | 1392 | 1394 | 1394 | 1395 | 1395 | 1398 | 1398 | 1401 | 1401 | 1402 | 1402 | 1404 | 1404 | 1405 | 1405 | 1408 | 1408 | 1411 | 1411 | 1412 | 1412 | 1414 | 1414 | 1415 | 1415 | 1418 | 1418 | 1421 | 1421 | 1422 | 1422 | 1424 | 1424 | 1425 | 1425 | 1428 | 1428 | 1431 | 1431 | 1432 | 1432 | 1434 | 1434 | 1435 | 1435 | 1438 | 1438 | 1441 | 1441 | 1442 | 1442 | 1444 | 1444 | 1445 | 1445 | 1448 | 1448 | 1451 | 1451 | 1452 | 1452 | 1454 | 1454 | 1455 | 1455 | 1458 | 1458 | 1461 | 1461 | 1462 | 1462 | 1464 | 1464 | 1465 | 1465 | 1468 | 1468 | 1471 | 1471 | 1472 | 1472 | 1474 | 1474 | 1475 | 1475 | 1478 | 1478 | 1481 | 1481 | 1482 | 1482 | 1484 | 1484 | 1485 | 1485 | 1488 | 1488 | 1491 | 1491 | 1492 | 1492 | 1494 | 1494 | 1495 | 1495 | 1498 | 1498 | 1501 | 1501 | 1502 | 1502 | 1504 | 1504 | 1505 | 1505 | 1508 | 1508 | 1511 | 1511 | 1512 | 1512 | 1514 | 1514 | 1515 | 1515 | 1518 | 1518 | 1521 | 1521 | 1522 | 1522 | 1524 | 1524 | 1525 | 1525 | 1528 | 1528 | 1531 | 1531 |

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS MALE
F1 25000StDose M | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----------|-----------------|--|
| | 078 | 045 | 049 | 054 | 057 | 068 | 073 | 075 | 082 | 085 | 094 | 095 | 104 | 105 | 114 | 115 | 124 | 125 | 134 | 135 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 063 | | |
| | 7 | 4 | 4 | 5 | 7 | 6 | 7 | 3 | 2 | 5 | 6 | 5 | 6 | 5 | 4 | 6 | 5 | 7 | 4 | 2 | 4 | 33 | |
| | 2 | 7 | 9 | 4 | 1 | 8 | 2 | 5 | 5 | 4 | 4 | 3 | 0 | 9 | 4 | 1 | 3 | 2 | 6 | 9 | 8 | 2 | |
| | 8 | 5 | 3 | 5 | 5 | 5 | 8 | 9 | 4 | 0 | 0 | 8 | 1 | 4 | 6 | 5 | 1 | 7 | 6 | 5 | 1 | 2 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | |
| | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | 3 | 3 | 3 | 3 | 3 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | |
| | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 3 | 4 | 4 | 5 | 5 | 5 | 2 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|--|---|---|---|--|----|-----|
| Respiratory Epithelium, Hyperplasia, Goblet Cell | 2 | 2 | | | | | | | | | | | | | | | | | | | | 4 | 2.0 |
| Respiratory Epithelium, Ulcer | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Transitional Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Upper Molar, Fibrosis | | | | | | | | | | 4 | | | | | | | | | | | | 1 | 4.0 |
| Trachea | | + | + | + | + | + | | + | + | + | A | + | + | + | + | + | | + | A | + | | 33 | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Eye | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Retina, Degeneration | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Cyst, Squamous | | | | | | | | | | | | | | | | | | | | | | 1 | 1 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | |
| Accumulation, Hyaline Droplet | | | | 4 | | | | | | | | | | | | | | | | | | 2 | 4.0 |
| Casts Protein | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | 1 | | | | | 2 | | | | | | | | 5 | 1.8 |
| Mineralization | | | | | | | | | | | | | 4 | | | | | | | | | 3 | 3.3 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Nephropathy | 4 | 4 | 1 | | 4 | 4 | 1 | 1 | | 4 | 4 | 2 | 3 | 4 | 2 | 2 | 4 | 4 | 3 | | 2 | 39 | 2.9 |
| Polyarteritis | | | 1 | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Cortex, Cyst | X | | | | | | | | | | | X | | | X | | | | | X | | 10 | |
| Pelvis, Dilatation | | | | | | | | | | | | | 3 | | | | | | | | | 3 | 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. Ctrl F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|------|
| | 0652 | 0597 | 0727 | 0727 | 0669 | 0666 | 0666 | 0722 | 0492 | 0722 | 0666 | 0666 | 0722 | 0492 | 0722 | 0666 | 0666 | 0722 | 0492 | 0722 | 0564 | 0666 | 0666 | 0559 | | 0559 |
| ANIMAL ID | 00091 | 00091 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001 | 00001 | 00002 | 00002 | 00002 | 00002 | 00002 | 00002 | 00002 | 00002 | 00002 | 00002 | 00002 | 00002 | 00002 | 00002 | 00002 | |
| Hepatocyte, Necrosis
Oval Cell, Hyperplasia | | | 1 | | | | | | | | 1 | | | | | | | | | | | | | | 1 | |
| Mesentery
Fat, Necrosis | | | + | | | | | | | | + | | | | | | | | | | | | | | 4 | |
| Pancreas
Basophilic Focus | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Infiltration Cellular, Lymphocyte
Inflammation, Chronic Active | 1 | 1 | 2 | 2 | 1 | 1 | | 2 | 2 | 2 | 1 | | 2 | 1 | 1 | | 1 | | | | | | X | 2 | 2 | 2 |
| Lipomatosis | | | | | | | | | | 4 | | | | | | | | | | | | | | | 3 | |
| Pigmentation
Acinus, Degeneration | | | 2 | | | | | | | 1 | 1 | | | | | | 1 | 1 | | | | | | 1 | | |
| | | 1 | 4 | 2 | 1 | 2 | | 4 | 4 | 2 | 2 | | 3 | 2 | 2 | | 2 | | | | 2 | 4 | | 2 | | |
| Stomach, Forestomach | + | + | | | + | + | + | | + | | + | + | | + | | + | + | + | + | | + | + | + | + | + | |
| Stomach, Glandular
Pigmentation | + | + | | | + | + | + | | + | | + | + | | + | | + | + | + | + | | + | + | + | + | + | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart
Cardiomyopathy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | 1 | 2 | 1 | | 2 | 1 | | 2 | 1 | 1 | 2 | 1 | 1 | | 1 | 2 | 1 | 1 | 1 | | | | 1 | 1 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex
Accessory Adrenal Cortical Nodule | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | 3 | | | | | | | 2 | 2 | | | | | 4 | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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F1 Veh. Ctrl F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| | 0652 | 0595 | 0727 | 0727 | 0669 | 0666 | 0672 | 0442 | 0772 | 0666 | 0447 | 0776 | 0665 | 0776 | 0650 | 0662 | 0772 | 0774 | 0568 | 0662 | 0656 | 0565 | 0559 | 0559 | |
| ANIMAL ID | 00091 | 00092 | 00093 | 00094 | 00095 | 00096 | 00097 | 00098 | 00099 | 00100 | 00101 | 00102 | 00103 | 00104 | 00105 | 00106 | 00107 | 00108 | 00109 | 00110 | 00111 | 00112 | 00113 | 00114 | |
| Degeneration, Cystic Hyperplasia | 4 | 2 | 1 | 2 | 2 | | 4 | 3 | 1 | 3 | | | 2 | 4 | 3 | | 2 | | 4 | 1 | 4 | 2 | | | |
| Hypertrophy | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Adrenal Medulla Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parathyroid Gland Hyperplasia | + | + | + | + | + | + | 1 | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pituitary Gland Angiectasis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | 3 | 3 | 3 | 3 | | | X | | | X | | | | X | | | X | X | | | | X | X | | |
| Pars Distalis, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Intermedia, Cyst | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland Ultimobranchial Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| C-cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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(cont...) | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|------|------|
| | 0652 | 0595 | 0727 | 0727 | 0669 | 0666 | 0672 | 0442 | 0772 | 0666 | 0442 | 0772 | 0666 | 0772 | 0666 | 0550 | 0662 | 0772 | 0772 | 0556 | | 0666 | 0665 | 0559 |
| ANIMAL ID | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 | 0001 | 0002 |
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat Pad, Ovarian/parametrial | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 3 | 2 | 4 | 3 | | 3 | 2 | 3 | 2 | 2 | 2 | 3 | 4 | 2 | 2 | 2 | 2 |
| Cyst | | | | | | | | | | | | | | | | | | | X | | | | | |
| Hyperplasia, Sertoliform | | | | | | | | | | | | | | | 1 | | | | | | | | | |
| Bilateral, Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Bilateral, Follicle, Cyst | | | | | | | | | | | | | X | | | | | | | | | | | |
| Follicle, Cyst | | | | | | | | | | | | | X | | | | | | | | X | | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Adenomyosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | 3 | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | 3 | | | | 3 | | | | 3 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | 1 | | | | |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | 2 | 1 | 2 | | | | | | | | | | | | | | | | | | | | | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

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(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0652 | 0595 | 0727 | 0727 | 0669 | 0666 | 0666 | 0772 | 0429 | 0722 | 0621 | 0424 | 0722 | 0621 | 0513 | 0622 | 0507 | 0622 | 0722 | 0727 | 0574 | 0648 | 0621 | 0565 | | |
| | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0004 | 0004 | 0004 | 0004 | 0004 | |
| | 0009 | 0009 | 0000 | 0001 | 0001 | 0001 | 0001 | 0002 | 0003 | 0003 | 0005 | 0005 | 0006 | 0006 | 0007 | 0008 | 0008 | 0008 | 0009 | 0009 | 0001 | 0001 | 0002 | 0002 | 0003 | |

Lymph Node, Mesenteric

+

Spleen
 Hematopoietic Cell Proliferation
 Necrosis
 Pigmentation

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| 1 | 2 | | 3 | | 2 | 3 | | 1 | | | 2 | 1 | | | 2 | 2 | | | | 3 | 3 | 4 | 1 | 2 |
| 1 | 1 | 3 | | 2 | 2 | 2 | | | 2 | 3 | 3 | 2 | 2 | 2 | | 2 | | | 4 | 2 | 2 | | 1 | |

Thymus
 Atrophy
 Cyst
 Hemorrhage

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 |
| | | X | | | | | | X | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

Mammary Gland
 Atypical Focus
 Hyperplasia, Lobular
 Alveolus, Dilatation
 Duct, Dilatation

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| 4 | 1 | 3 | 3 | 4 | 3 | 3 | 3 | 2 | 2 | 4 | | 4 | 3 | 4 | 4 | 3 | 2 | 4 | 4 | 4 | 4 | 3 | 3 | 3 |
| | | 2 | | | | 2 | 2 | | 2 | 2 | | | | 2 | 2 | | | | 2 | | | | | |

Skin
 Epithelium, Foot, Hyperplasia
 Foot, Bacterium
 Foot, Edema
 Foot, Fibrosis
 Foot, Inflammation, Chronic Active
 Foot, Necrosis
 Foot, Ulcer

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|--|--|--|---|--|--|--|---|--|--|--|---|---|--|--|---|--|---|--|---|
| + | + | + | + | | | | | + | | | | + | | | | + | + | | | + | | + | | + |
| 4 | 4 | 4 | 4 | | | | | 4 | | | | 4 | | | | 4 | | | | 4 | | 4 | | 4 |
| | | X | | | | | | | | | | | | | | | | | | | | | | |
| 4 | | | | 3 | | | | | | | | 3 | | | | 4 | | | | | | 4 | | 4 |
| 4 | 4 | 4 | 4 | | | | | 4 | | | | 4 | | | | 4 | | | | | | 4 | | 4 |
| 4 | 4 | 4 | 4 | | | | | 4 | | | | 4 | | | | 4 | | | | | | 4 | | 4 |
| 4 | 4 | 4 | 4 | | | | | 4 | | | | 4 | | | | 4 | | | | | | 4 | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
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|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-----------|
| | 0727 | 0728 | 0728 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | 0729 | | 0729 |
| ANIMAL ID | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 | 04432 |
| Degeneration, Cystic Hyperplasia | 3 | 2 | 4 | | | 4 | 3 | 2 | 3 | 4 | | 3 | 4 | 2 | 2 | | | | | | | 3 | | | | 4 | 31 |
| Hypertrophy | | | | 2 | | | | | 2 | | | | | | 1 | 1 | | | | | | | | | | 1 | 7 |
| Vacuolization Cytoplasmic | | | | 1 | | | | | | | | | | | | | | | | | | | | | 2 | | 3 |
| Adrenal Medulla Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Islets, Pancreatic | | 1 | 1 | 1 | | | | | | | | | | | 3 | | | | | | | 1 | | | | | 8 |
| Parathyroid Gland Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Pituitary Gland Angiectasis | | | | | | | 4 | 4 | | | | | | 4 | | | | | | | | 4 | | | 4 | 4 | 10 |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | 9 |
| Pars Distalis, Hyperplasia | | 3 | | 4 | 4 | | | | | | | 3 | 4 | | | | 4 | 3 | | | | 2 | | 4 | | 2 | 27 |
| Pars Distalis, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Thyroid Gland Ultimobranchial Cyst | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| C-cell, Hyperplasia | | | 1 | 1 | 2 | | | | 3 | 2 | | | | | | 2 | 1 | | | | 1 | 1 | | | | | 22 |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. Ctrl F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | |
|---|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|-----|-----|-----|-----|-----|--------|-------|
| | 077 | 078 | 078 | 079 | 079 | 079 | 079 | 079 | 079 | 079 | 079 | 079 | 079 | 079 | 079 | 079 | 079 | 079 | 079 | 079 | | 079 | 079 | | | | | |
| ANIMAL ID | 044 | 044 | 044 | 044 | 044 | 046 | 046 | 046 | 046 | 046 | 046 | 046 | 046 | 046 | 046 | 048 | 048 | 048 | 048 | 048 | 048 | 048 | 048 | 048 | 048 | 048 | 048 | |
| | 443 | 444 | 444 | 445 | 445 | 446 | 446 | 447 | 447 | 448 | 448 | 449 | 449 | 449 | 449 | 449 | 449 | 449 | 449 | 449 | 449 | 449 | 449 | 449 | 449 | 449 | 449 | |
| | 21 | 18 | 38 | 21 | 22 | 12 | 22 | 22 | 22 | 42 | 42 | 33 | 33 | 33 | 33 | 44 | 44 | 44 | 44 | 44 | 33 | 33 | 22 | 22 | 22 | 22 | 22 | |
| Atrophy | | | | | | | | | | | | | | | | 3 | | | | | | | | | | | | 1 3.0 |
| Infiltration Cellular, Polymorphonuclear Epithelium, Degeneration | | 3 | | | 2 | | | | | | | | | | | | 4 | | | | | | 3 | 4 | | | | 7 3.1 |
| Epithelium, Hyperplasia | 3 | | | 4 | | | | | | | | | | | | | | | 3 | | | | | | | | | 4 3.0 |
| Epithelium, Mucification | 3 | 2 | 3 | 2 | 2 | | 2 | 2 | 2 | 4 | 4 | 3 | 3 | | 3 | 4 | 4 | 4 | 4 | | 4 | 4 | 3 | 3 | 2 | | 46 3.2 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-------|-------|-------|
| Bone Marrow Hypocellularity | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 2 3.5 | | |
| Lymph Node Axillary, Degeneration, Cystic | | | | + | | | | | | | | | | | | | | | | | | | | | | | | 12 | 1 3.0 | |
| Lymph Node Axillary, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Lymph Node Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 3.0 | |
| Lymph Node Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 6 3.5 | |
| Lymph Node Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 4.0 | |
| Lymph Node Mediastinal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Lymph Node Mediastinal, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Lymph Node Renal, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Lymph Node Renal, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Lymph Node Renal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Lymph Node Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Lymph Node Renal, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | |
| Lymph Node, Mandibular Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 1 4.0 |
| Lymph Node, Mandibular Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 2.7 | |
| Lymph Node, Mandibular Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 3.7 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

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Experiment Number: 10034 - 04

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Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. Ctrl F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| | 07
27 | 07
28 | 07
28 | 07
29 | 05
07 | 05
07 | 04
08 | 06
04 | 06
04 | 07
07 | 06
02 | 06
08 | 07
07 | 04
09 | 06
03 | 04
01 | 05
07 | 06
09 | 07
07 | 05
04 | 04
03 | 07
02 | 04
06 | 07
03 | |
| ANIMAL ID | 04
44
33
22 | 04
44
44
11 | 04
44
44
22 | 04
44
55
11 | 06
66
66
22 | 06
66
55
11 | 06
66
55
22 | 06
66
55
77 | 06
66
55
11 | 06
66
55
88 | 06
66
55
99 | 06
66
55
22 | 06
66
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11 | 06
66
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22 | 08
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22 | 08
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11 |
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MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | + | 1 |
| Joint, Edema | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Compression | 4 | | | | 3 | 2 | 3 | 4 | | | | | | 2 | | | 2 | | 4 | | 1 | | 3 | | | 14 3.1 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ventricle, Dilatation | | | | | | | | | 1 | 2 | | | | | 1 | | | | | | | | 1 | | | 7 1.4 |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | + | 7 |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4 2.0 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | + | 7 |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | + | 7 |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | + | 7 |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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M .. Missing tissue

A .. Autolysis precludes evaluation

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2) Mild 4) Marked

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Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|-------|------|
| | 0535 | 0085 | 0727 | 0549 | 0727 | 0738 | 0352 | 0562 | 0666 | 0644 | 0777 | 0777 | 0777 | 0288 | 0275 | 0777 | 0777 | 0666 | 0666 | 0555 | | 0777 | 0777 |
| ANIMAL ID | 00251 | 00252 | 00251 | 00252 | 00251 | 00252 | 00251 | 00252 | 00251 | 00252 | 00251 | 00252 | 00251 | 00252 | 00251 | 00252 | 00251 | 00252 | 00251 | 00252 | 00251 | 00252 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | | + | | | + | + | + | + | + | | | | + | | | + | + | + | | |
| Intestine Large, Colon Dilatation | + | + | | + | | | + | + | + | + | + | | | | + | | | + | + | + | | |
| Intestine Small, Ileum | + | + | | + | | | + | + | + | + | + | | | | + | | | + | + | + | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | 2 | | | | | | | | | | | | | | | | | 2 | |
| Basophilic Focus | | | | X | X | X | | X | X | X | X | | X | X | X | | X | X | | | X | |
| Basophilic Focus, Multiple | | | | | | | | | | | | | | | | | | | | | | X |
| Cholangiofibrosis | | | | | | | | | | 1 | | | | | | | | | | | | |
| Clear Cell Focus | | | | | | | | | | X | | | | | | | | X | | | | X |
| Degeneration, Cystic | | | | | | | | | | | | | | 1 | | | | | | | | |
| Fatty Change | | | | | | 3 | | | | | 2 | | | | | | | 3 | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | 2 |
| Hemorrhage | | | | 2 | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | X | X | | | | | | | | | | X | |
| Infiltration Cellular, Mononuclear Cell | | 1 | 2 | | 1 | 2 | | 1 | 1 | 1 | 1 | | 1 | 1 | | 1 | 1 | 2 | 1 | | | 2 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | |
| Mitotic Alteration | | | | | | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | X | | | | X |
| Tension Lipidosis | | | | | | | | | | | 4 | | | | 2 | | | 4 | | 2 | | 4 |
| Vacuolization Cytoplasmic | | | | | 2 | | | | 2 | 2 | | 1 | 2 | 2 | | 1 | | | 2 | | | 2 |
| Bile Duct, Hyperplasia | | | 2 | | 1 | 1 | | 2 | 1 | | | | 1 | | | 1 | 2 | 1 | | | | 2 |
| Biliary Tract, Fibrosis | | | | | | | | | | 1 | | | | | | | 2 | | 1 | | | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0535 | 0085 | 0077 | 0054 | 0072 | 0078 | 0032 | 0055 | 0062 | 0066 | 0044 | 0077 | 0077 | 0077 | 0022 | 0077 | 0077 | 0066 | 0066 | 0055 | | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Basophilic Focus | | | | | | | X | | | X | | | | | | | | | | X | | | |
| Infiltration Cellular, Lymphocyte | 2 | | 1 | 2 | 1 | 1 | 1 | 2 | | | | 1 | 1 | 2 | | 2 | 1 | 2 | | 1 | | | 2 |
| Inflammation, Chronic Active | 2 | 1 | | 2 | | | | | | | | | | | | | | | | | | | |
| Lipomatosis | | | | 3 | | 2 | | | | 2 | | | | | 2 | | | | | | | | |
| Pigmentation | | | | 1 | 1 | | | 1 | | | | | 1 | 1 | | 1 | 1 | | 1 | | | | |
| Acinus, Degeneration | 3 | 1 | 1 | 4 | 2 | 2 | | 2 | 2 | | | 1 | 1 | 2 | 4 | | 3 | 1 | 2 | | 1 | | 3 |
| Stomach, Forestomach | + | + | | + | | | + | + | + | + | + | + | + | | + | | | + | | + | + | + | |
| Stomach, Glandular | + | + | | + | | | + | + | + | + | + | + | | | + | | | + | | + | + | + | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | | 1 | 4 | | 2 | 1 | | | | | 1 | 1 | | 1 | 2 | 1 | | 2 | | 3 | | 1 | 1 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | 3 | | | | | | | | | | | | | | | | | | | | | 3 | |
| Degeneration, Cystic | 4 | | | 1 | | 4 | | | 3 | 2 | 4 | 2 | 4 | 4 | | | 4 | 2 | 1 | | 4 | 4 | 2 |
| Hyperplasia | | | 2 | 1 | 1 | | | | | | | | | | | | 1 | 1 | | | | | 1 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | 2 | | | | | | | | | | | | 2 | | | | | 1 | | | 1 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

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Lab: NCTR

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RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------|----------------------|
| | 0
5
3
5 | 0
0
8
5 | 0
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7 | 0
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9 | 0
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7 | 0
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2 | 0
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1 | | |

Hyperplasia
Hypertrophy

1 1 3 1

Islets, Pancreatic
Hyperplasia

+
2

Parathyroid Gland
Hyperplasia

+
1

Pituitary Gland
Angiectasis
Pars Distalis, Cyst
Pars Distalis, Hyperplasia

+
4 4 4 4
X
4 4 4 4
3 4 4 3 4 4 4 4

Thyroid Gland
Fibrosis
Ultimobranhial Cyst
C-cell, Hyperplasia
Follicular Cell, Hyperplasia

+
4
X
1 1 1 1
2
1 2

GENERAL BODY SYSTEM

Tissue NOS

GENITAL SYSTEM

Clitoral Gland
Hyperkeratosis
Inflammation, Suppurative
Duct, Dilatation

+ +
3
2 4
3 3

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|---|-----------------------|----------------------|
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7 | 0
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9 | 0
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2
7 | 0
7
2
8 | 0
3
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2 | 0
5
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5 | 0
6
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2 | 0
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4
6 | 0
6
9
8 | 0
7
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1 | 0
7
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0 | 0
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8 | 0
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8
7 | 0
2
5
5 | 0
7
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0 | 0
7
2
6 | 0
6
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2 | 0
6
2
6 | 0
5
7
1 | 0
7
2
8 | 0
7
2
8 | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 0
0
2
5
1 | + |
| Atrophy | 4 | | 4 | 3 | 4 | 2 | 2 | 1 | 4 | 2 | 3 | 4 | 3 | 2 | 2 | | 2 | 2 | 2 | 3 | 2 | 4 | 2 | 3 | 0
0
2
5
1 | |
| Cyst | | | | | | | | | | | | | | | | | | X | | | X | | | X | 0
0
2
5
1 | |
| Hyperplasia, Sertoliform | | | 3 | | | | | | | | | | | 1 | | | | | | | | | 1 | | 0
0
2
5
1 | |
| Polyarteritis | | | 2 | | | | | | | | | | | | | | | | | | | | | | 0
0
2
5
1 | |
| Bilateral, Cyst | | | | | X | | | | | | | | | | | | | | | | | | | | 0
0
2
5
1 | |
| Bursa, Cyst | | | | | | | | | X | | | | | | | | | | | | | | | | 0
0
2
5
1 | |
| Follicle, Cyst | | | | | | X | | | | | | | | X | | | | | | | | X | | | 0
0
2
5
1 | |
| Granulosa Cell, Hyperplasia | | | | | | | | | | | 4 | | | | | | | | | | | | | 2 | 0
0
2
5
1 | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 0
0
2
5
1 | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 0
0
2
5
1 | |
| Adenomyosis | | | | | | | | | | | | | | | | | | | | | | | | | 0
0
2
5
1 | |
| Atrophy | | | 4 | | 4 | | | | | | 3 | | 4 | | 3 | 3 | | | | 3 | | | | | 0
0
2
5
1 | |
| Metaplasia, Squamous | 1 | | | | | | | | | 1 | | | | | | | | | | | | | 2 | | 0
0
2
5
1 | |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | | | | | | | 3 | | | | | | | | 0
0
2
5
1 | |
| Endometrium, Cyst | | | | | | | | | | X | | | | | | | | | | | | | | | 0
0
2
5
1 | |
| Endometrium, Hyperplasia | | | | | | 1 | | 2 | | | | | 2 | | | | | | | 1 | | | | 2 | 0
0
2
5
1 | |
| Endometrium, Hyperplasia, Cystic | | | | 2 | | | 2 | | 3 | | | | | | | 3 | 2 | 2 | | | 2 | 2 | 1 | | 0
0
2
5
1 | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 4 | 0
0
2
5
1 | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 0
0
2
5
1 | |
| Atrophy | | | 4 | | 4 | | | | | | | | | | | | | | | | | | | | 0
0
2
5
1 | |
| Foreign Body | | | | | | | | | | X | | | | | | | | | | | | | | | 0
0
2
5
1 | |
| Hemorrhage | | | | | | | | | | | 2 | | | | | | | | | | | | | | 0
0
2
5
1 | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | 2 | | | 3 | | | | | 0
0
2
5
1 | |
| Inflammation, Chronic Active | | | | | | | | | | 4 | | | | | | | | | | | | | | | 0
0
2
5
1 | |
| Epithelium, Degeneration | 3 | | | | | | | | | | | 4 | 2 | | 3 | | | | | 3 | | | | | 0
0
2
5
1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|----------|------|
| | 0535 | 0085 | 0077 | 0054 | 0072 | 0078 | 0032 | 0052 | 0066 | 0066 | 0044 | 0077 | 0077 | 0077 | 0022 | 0077 | 0077 | 0077 | 0066 | 0066 | | | 0055 | 0077 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00022551 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------|---|--|--|---|--|---|--|---|---|--|--|---|---|---|---|--|---|---|--|---|---|---|---|---|---|
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 3 | 3 | |
| Epithelium, Mucification | 2 | | | 4 | | 3 | | 4 | 4 | | | 2 | 3 | 2 | 4 | | 3 | 4 | | 3 | 4 | 4 | 2 | 3 | 2 |
| Lumen, Dilatation | | | | | | | | | 4 | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hypocellularity | | | | | | | | | | | | 4 | | | | | | | | | 4 | | | 3 |
| Myeloid Cell, Hyperplasia | | | | | 4 | | | | | | | | | | | 4 | | | | | | | | |
| Lymph Node | | | + | | + | | + | | | | | | | | | + | | | + | | | | | |
| Axillary, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | 4 | | | | | | | | |
| Iliac, Hyperplasia, Lymphoid | | | | | | | | | | | 4 | | | | | | | | | | | | | |
| Iliac, Infiltration Cellular, Plasma Cell | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | 3 | | | | | | | | | | 4 | | | | | | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | 3 | | | | | | | | | 4 | | | 4 | | | | | |
| Popliteal, Hyperplasia, Lymphoid | | | | | | | | | | | 4 | | | | | | | | | | | | | |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Renal, Degeneration, Cystic | | | | 4 | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Bacterium | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | 4 | 2 | 4 | 3 | 3 | | 3 | | 3 | 2 | | 2 | | 2 | | 3 | | 3 | 2 | | | 4 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

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Species/Strain: RATS/Sprague Dawley (NCTR)

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RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|
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| ANIMAL ID | 0
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|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|--|--|--|--|--|--|--|--|--|--|--|
| Pigmentation | 2 | 3 | 2 | 1 | 4 | 2 | 2 | 4 | 4 | 1 | 3 | 3 | 2 | | | | | | | | | | | |
| Polyarteritis | | 1 | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atypical Focus | | | 1 | | | | | | | | | | 3 | | | | | | 3 | | | | | 1 |
| Hyperplasia, Lobular | 1 | 3 | 4 | 3 | 3 | 4 | 3 | 4 | 3 | 2 | 4 | 4 | 3 | | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 3 |
| Alveolus, Dilatation | 1 | 3 | 2 | 2 | | | | 3 | 2 | 2 | | | | | 2 | 2 | | | | | | 2 | | |
| Duct, Dilatation | 2 | 3 | 2 | 2 | | | | 4 | 2 | 2 | | | | | 2 | | | | 4 | | | 2 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|--|--|--|--|--|--|---|--|--|--|--|--|---|---|--|--|---|---|--|--|--|---|--|
| Skin | + | | | | | | | + | | | | | | + | + | | | + | | | | | + | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Ulcer | | | | | | | | 2 | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Epithelium, Foot, Hyperplasia | 4 | | | | | | | 4 | | | | | | 4 | | | | | | | | | 4 | |
| Foot, Edema | 4 | | | | | | | 4 | | | | | | 4 | | | | | 4 | | | | | |
| Foot, Fibrosis | 4 | | | | | | | 4 | | | | | | 4 | | | | | 4 | | | | 4 | |
| Foot, Inflammation, Chronic Active | 4 | | | | | | | 4 | | | | | | 4 | | | | | 4 | | | | 4 | |
| Foot, Necrosis | | | | | | | | 4 | | | | | | 4 | | | | | 4 | | | | 4 | |
| Foot, Ulcer | | | | | | | | 4 | | | | | | 4 | | | | | 4 | | | | 4 | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0535 | 0085 | 0077 | 0054 | 0072 | 0078 | 0032 | 0052 | 0062 | 0066 | 0044 | 0073 | 0077 | 0078 | 0022 | 0082 | 0075 | 0077 | 0062 | 0062 | 0066 | 0057 | 0072 | 0078 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 002251 | |

Spinal Cord, Thoracic Mineralization + + + + +

RESPIRATORY SYSTEM

Lung +
 Hemorrhage
 Infiltration Cellular, Histiocyte 1
 Inflammation, Granulomatous
 Inflammation, Chronic 1
 Alveolar Epithelium, Hyperplasia

Nose +
 Hemorrhage
 Inflammation, Suppurative 1
 Olfactory Epithelium, Accumulation, Hyaline Droplet 2

Trachea +

SPECIAL SENSES SYSTEM

Zymbal's Gland +

URINARY SYSTEM

Kidney +
 Casts Protein 2
 Infiltration Cellular, Polymorphonuclear
 Mineralization 1 1 1 1 1 2 1 2

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
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(cont...) | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|
| | 0535 | 0085 | 0077 | 0054 | 0072 | 0077 | 0033 | 0056 | 0066 | 0066 | 0044 | 0077 | 0077 | 0077 | 0022 | 0077 | 0077 | 0077 | 0066 | 0066 | 0055 | 0077 | 0077 | 0077 | 0066 | | | 0066 | 0055 |
| Nephropathy | 1 | 4 | 4 | 1 | 1 | | | | 1 | 2 | | 2 | 1 | 1 | 2 | | 1 | 1 | 1 | 2 | 2 | 1 | | 2 | 2 | | | | |
| Polyarteritis | | 4 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cortex, Cyst | | | X | | | | | | | | | X | | X | X | | | | | | | | | | | | | | |
| Renal Tubule, Cyst | X | | | | | X | | X | | | | | | | | | | | | | | | | | | | | | |
| Transitional Epithelium, Hyperplasia | 1 | | | | | 1 | | 1 | | | | | | 1 | | | | | | | | | | | | | | | |

Urinary Bladder
Lumen, Dilatation

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
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RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0727 | 0715 | 0728 | 0748 | 0707 | 0766 | 0776 | 0777 | 0755 | 0755 | 0776 | 0766 | 0755 | 0776 | 0777 | 0744 | 0755 | 0755 | 0776 | 0766 | | 0766 | 0755 |
| ANIMAL ID | 04592 | 04466 | 04466 | 04466 | 04466 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 | 04666 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 7 | 7 | 1 | 6 | 6 | 7 | 7 | 5 | 5 | 7 | 6 | 6 | 5 | 7 | 7 | 4 | 5 | 5 | 7 | 6 | 6 | 5 |
| | 2 | 1 | 2 | 4 | 0 | 3 | 2 | 2 | 0 | 8 | 2 | 8 | 5 | 0 | 2 | 3 | 7 | 2 | 4 | 2 | 5 | 2 | 9 |
| | 7 | 5 | 8 | 8 | 7 | 6 | 0 | 9 | 8 | 2 | 5 | 0 | 1 | 6 | 5 | 0 | 2 | 1 | 1 | 7 | 1 | 9 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 9 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-------|
| Esophagus | + | | | | | | | | | | | | | | | | | | | | | | 29 | |
| Intestine Large, Colon Dilatation | + | | | | | | | | | | | | | | | | | | | | | | 30 | 1 4.0 |
| Intestine Small, Ileum | + | | | | | | | | | | | | | | | | | | | | | | 29 | |
| Liver | + | | | | | | | | | | | | | | | | | | | | | | 48 | |
| Angiectasis | 2 | | | | | | | | | | | | | | | | | | | | | | 4 | 2.0 |
| Basophilic Focus | X | | | | | | | | | | | | | | | | | | | | | | 22 | |
| Basophilic Focus, Multiple | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Cholangiofibrosis | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Clear Cell Focus | X | | | | | | | | | | | | | | | | | | | | | | 9 | |
| Degeneration, Cystic | 1 | | | | | | | | | | | | | | | | | | | | | | 3 | 1.0 |
| Fatty Change | 2 | | | | | | | | | | | | | | | | | | | | | | 9 | 2.4 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Hemorrhage | 4 | | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Infiltration Cellular, Mononuclear Cell | 1 | | | | | | | | | | | | | | | | | | | | | | 28 | 1.3 |
| Inflammation, Chronic Active | 1 | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Mitotic Alteration | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Tension Lipidosis | 3 | | | | | | | | | | | | | | | | | | | | | | 7 | 3.0 |
| Vacuolization Cytoplasmic | 2 | | | | | | | | | | | | | | | | | | | | | | 16 | 1.7 |
| Bile Duct, Hyperplasia | 3 | | | | | | | | | | | | | | | | | | | | | | 18 | 1.8 |
| Biliary Tract, Fibrosis | 1 | | | | | | | | | | | | | | | | | | | | | | 10 | 1.4 |
| Hepatocyte, Necrosis | 1 | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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 1) Minimal 3) Moderate
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Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|------|
| | 0727 | 0715 | 0728 | 0748 | 0707 | 0766 | 0777 | 0777 | 0755 | 0755 | 0776 | 0766 | 0755 | 0777 | 0777 | 0744 | 0755 | 0755 | 0777 | 0766 | | 0766 | 0755 |
| ANIMAL ID | 04592 | 04465 | 04466 | 04466 | 04467 | 04467 | 04467 | 04467 | 04467 | 04467 | 04467 | 04467 | 04467 | 04467 | 04467 | 04467 | 04467 | 04467 | 04467 | 04467 | 04467 | 04467 | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Basophilic Focus | | | | | | | | X | | X | | | | | X | | | | | | | 6 | |
| Infiltration Cellular, Lymphocyte | 2 | 3 | 2 | | | 3 | 1 | 1 | | 1 | 1 | 1 | 4 | 1 | 1 | | 1 | | 1 | 2 | 1 | 2 | 33 |
| Inflammation, Chronic Active | | | | | | 2 | | | | | | | | | | | | | | | | | 4 |
| Lipomatosis | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Pigmentation | | | 1 | | | | | | | | 1 | | 2 | | | | | | | | | | 11 |
| Acinus, Degeneration | 2 | 4 | 4 | | | 4 | 2 | 2 | | 2 | 2 | 1 | 4 | 2 | 2 | | 2 | | 2 | 2 | | 3 | 34 |
| Stomach, Forestomach | | + | | + | + | + | | | | + | + | | + | + | + | | + | + | + | | + | + | 29 |
| Stomach, Glandular | | + | | + | + | + | | | | + | + | | + | + | + | | + | + | + | | + | + | 29 |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Cardiomyopathy | 1 | 1 | 2 | | 1 | | 3 | 2 | 2 | 1 | 3 | 1 | | | 1 | | | 2 | 1 | 1 | | 1 | 30 |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Accessory Adrenal Cortical Nodule | | | | | | X | | | | | | | | | | | | | | | | | 1 |
| Angiectasis | | | 3 | | | | | | 4 | | 2 | | | | | 2 | | 2 | | 2 | | | 8 |
| Degeneration, Cystic | 3 | 2 | 3 | | | 3 | 4 | 4 | | 2 | 3 | | | 4 | | 2 | | 2 | 2 | 4 | | 1 | 30 |
| Hyperplasia | | | | | | | | | | | | | | | | 1 | | | | | | | 7 |
| Hypertrophy | | | | | | | | | | 3 | | 1 | | | | | | | | | | | 2 |
| Vacuolization Cytoplasmic | | | | | | | | | | | 2 | | | | | | | | | | | 2 | 6 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|----|
| | 0727 | 0712 | 0708 | 0704 | 0700 | 0626 | 0622 | 0618 | 0614 | 0610 | 0606 | 0602 | 0528 | 0524 | 0520 | 0516 | 0512 | 0508 | 0504 | 0500 | | | | | | | | |
| ANIMAL ID | 04592 | 04461 | 04462 | 04461 | 04462 | 04661 | 04667 | 04667 | 04667 | 04666 | 04666 | 04667 | 04667 | 04667 | 04667 | 04667 | 04884 | 04884 | 04885 | 04885 | 04885 | 04885 | 04885 | 04885 | 04885 | 04887 | 04887 | |
| Hyperplasia | | | 1 | | | | | 1 | | | 2 | | | | | | | | | | | | | | | | | 7 |
| Hypertrophy | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | 1 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Hyperplasia | | | 2 | | | 2 | | | | 3 | | | 2 | | | | 1 | | | | | | | | | | | 6 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Angiectasis | | | | | | | | | | 4 | | 4 | | | | | | | | | | | | | | | | 8 |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Pars Distalis, Hyperplasia | | 4 | | | 4 | 2 | | 3 | 4 | 3 | | 2 | | 4 | | | 3 | 4 | | 1 | 4 | | | | 4 | | 22 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Ultimobranchial Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| C-cell, Hyperplasia | 2 | | 1 | | 1 | | | 1 | 3 | 1 | 2 | | | 1 | | | | | | 3 | 1 | | | 1 | | | 17 | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | 3 | 3 | 2 | | | | | | 3 | 3 | | | | | | | 6 | |

| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
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|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|-----|
| | 0727 | 0712 | 0708 | 0704 | 0607 | 0606 | 0607 | 0607 | 0505 | 0505 | 0706 | 0606 | 0505 | 0707 | 0707 | 0404 | 0505 | 0507 | 0606 | 0606 | | 0505 | |
| ANIMAL ID | 04592 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Atrophy | 2 | 2 | 2 | | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 2 | 4 | 3 | 4 | 3 | 2 | 3 | 45 |
| Cyst | | | | | | | | | | | | | | X | | | | | | | | | 4 |
| Hyperplasia, Sertoliform | | | | | | | | | | 2 | | | | | | | | | | | | 1 | 5 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Bilateral, Cyst | | | | | | | | | | | | | | | | X | | | | | | | 2 |
| Bursa, Cyst | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Granulosa Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | 3.0 |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Adenomyosis | | | | | | | | | | | | | | | | | | | | | 2 | | 1 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | 3 | | 8 |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | 2 | | | | | | 4 |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Endometrium, Cyst | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Endometrium, Hyperplasia | | | 1 | | | 2 | 2 | 1 | 3 | 1 | | | | 2 | 3 | | | 2 | | 2 | | | 15 |
| Endometrium, Hyperplasia, Cystic | 2 | | 2 | | 2 | | | | | | 2 | 2 | 1 | | | 3 | 2 | | 3 | | 3 | 2 | 20 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | 4 | 2 |
| | | | | | | | | | | | | | | | | | | | | | | | 4.0 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Epithelium, Degeneration | | | | | | | | | | 2 | | | | | | | | | | | | | 6 |
| | | | | | | | | | | | | | | | | | | | | | | | 2.8 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|
| | 0727 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | 0728 | | 0728 |
| ANIMAL ID | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | 04592 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Pigmentation | | 3 | | 3 | 2 | 2 | | 1 | | 3 | | 1 | | 1 | 2 | 3 | 2 | 1 | 2 | 2 | | | 27 | 2.3 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Atrophy | 4 | 4 | 4 | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 47 | 3.8 |
| Hemorrhage | | | | 2 | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | | |
| Atypical Focus | 1 | | | | | | 2 | | | | | 2 | | | | | | | | | | | 7 | 1.9 | |
| Hyperplasia, Lobular | 4 | 3 | 4 | | 3 | | 4 | 3 | 4 | 2 | 4 | 2 | 4 | | 4 | 4 | 2 | 4 | | 2 | 2 | 4 | 4 | 41 | 3.3 |
| Alveolus, Dilatation | | | | | 2 | | | | | | 2 | | | | | | | 2 | | | | 2 | | 14 | 2.1 |
| Duct, Dilatation | | | | | 2 | | | | | | 2 | | | | | | 2 | | 2 | | | | 3 | 16 | 2.4 |
| Skin | + | | | | | | + | + | | | | | | | + | + | | | | | | + | 12 | | |
| Inflammation, Suppurative | | | | | | | 2 | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Ulcer | | | | | | | 2 | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Epithelium, Foot, Hyperplasia | 4 | | | | | | 4 | 4 | | | | | | 4 | 4 | | | | | | | 4 | 10 | 4.0 | |
| Foot, Edema | | | | | | | 4 | | | | | | | 4 | 4 | | | | | | | 4 | 8 | 4.0 | |
| Foot, Fibrosis | 4 | | | | | | 4 | 4 | | | | | | 4 | 4 | | | | | | | 4 | 11 | 4.0 | |
| Foot, Inflammation, Chronic Active | 4 | | | | | | 4 | 4 | | | | | | 4 | 4 | | | | | | | 4 | 11 | 4.0 | |
| Foot, Necrosis | 4 | | | | | | 4 | 4 | | | | | | 4 | 4 | | | | | | | 4 | 10 | 4.0 | |
| Foot, Ulcer | 4 | | | | | | 4 | 4 | | | | | | 4 | 4 | | | | | | | 4 | 10 | 4.0 | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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X .. Lesion present
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|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
| | 077 | 077 | 077 | 071 | 066 | 066 | 077 | 077 | 055 | 055 | 077 | 066 | 066 | 055 | 077 | 077 | 044 | 055 | 055 | 077 | | 066 | 066 | 055 |
| ANIMAL ID | 04592 | 04461 | 04466 | 04466 | 04466 | 04467 | 04467 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 | 04466 |

Skeletal Muscle + 1

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|--|
| Brain, Brain Stem
Compression | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 13 | 2.5 | |
| Hemorrhage | 3 | | | 4 | | | | 2 | | | | | | 2 | | | | | | | | | | | | 1 | 4.0 | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Brain, Cerebellum
Hemorrhage | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 1 | 2.0 | |
| Brain, Cerebrum
Hemorrhage | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 1 | 2.0 | |
| Ventricle, Dilatation | | | | 2 | | | | | | | | | | | | | | | | | | | | | | 4 | 1.8 | |
| Nerve Trigeminal
Axon, Degeneration | | | | + | | | | | | + | + | + | | + | | | | + | | + | | | | | 12 | 7 | 1.3 | |
| Peripheral Nerve, Sciatic | | | | + | | | | | | + | + | + | | + | | | | + | | + | | | | | 12 | | | |
| Peripheral Nerve, Tibial
Axon, Degeneration | | | | + | | | | | | + | + | + | | + | | | | + | | + | | | | | 12 | 2 | 1.0 | |
| Spinal Cord, Cervical
Mineralization | | | | A | | | | | | + | + | + | | + | | | | + | | + | | | | | 11 | 1 | 1.0 | |
| Spinal Cord, Lumbar
Axon, Degeneration | | | | + | | | | | | + | + | + | | + | | | | + | | + | | | | | 12 | 8 | 1.5 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----------|----|-------|
| | 07
27 | 07
15 | 07
22 | 07
28 | 07
01 | 07
06 | 07
07 | 07
13 | 07
20 | 07
26 | 07
03 | 07
08 | 07
14 | 07
21 | 07
27 | 07
03 | 07
10 | 07
16 | 07
23 | 07
29 | | | |
| ANIMAL ID | 04592 | 04601 | 04602 | 04603 | 04604 | 04605 | 04606 | 04607 | 04608 | 04609 | 04610 | 04611 | 04612 | 04613 | 04614 | 04615 | 04616 | 04617 | 04618 | 04619 | 04620 | | |
| Spinal Cord, Thoracic Mineralization | | | | A | | | | | | | | | | | | | | | | | | 11 | 1 1.0 |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | | | | | | | | | | | | | | | | | | | | | 32 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | 3 | 2.0 |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 2 | 1.5 |
| Nose | | | | | | | | | | | | | | | | | | | | | | 29 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | 5 | 2.0 |
| Trachea | | | | | | | | | | | | | | | | | | | | | | 29 | |
| SPECIAL SENSES SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Zymbal's Gland | | | | | | | | | | | | | | | | | | | | | | 1 | |
| URINARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Kidney | | | | | | | | | | | | | | | | | | | | | | 48 | |
| Casts Protein | | | | | | | | | | | | | | | | | | | | | | 4 | 1.3 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | 23 | 1.1 |

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 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|-----|-----|--------|-------|
| | 077 | 077 | 077 | 011 | 066 | 066 | 077 | 077 | 055 | 055 | 077 | 066 | 066 | 055 | 077 | 077 | 044 | 055 | 055 | 077 | | 066 | 066 | 055 | |
| ANIMAL ID | 045 | 046 | 046 | 046 | 046 | 066 | 066 | 066 | 066 | 066 | 066 | 066 | 066 | 066 | 088 | 088 | 088 | 088 | 088 | 088 | 088 | 088 | 088 | | |
| Nephropathy | | | 2 | | 1 | 1 | | | | | | | 4 | | 1 | 1 | | | | 2 | | 1 | 1 | 28 1.6 | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | 2 3.0 | |
| Cortex, Cyst | | | | | | | | | | X | | | | | | | | X | | | | X | | 8 | |
| Renal Tubule, Cyst | X | | | | | X | X | | | | | | X | | | | | | | | | | | 8 | |
| Transitional Epithelium, Hyperplasia | | | | | | | | 1 | | | | 2 | | | | 1 | 1 | | | 1 | | | | 9 1.1 | |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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 Bisphenol A
 CAS Number: 80-05-7
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|---|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------------------|
| | 0139 | 0632 | 0435 | 0594 | 0616 | 0665 | 0558 | 0555 | 0554 | 0452 | 0544 | 0627 | 0544 | 0540 | 0555 | 0728 | 0647 | 0661 | 0552 | 0772 | 0772 | 0722 | 0778 | 0778 | 0529 | |
| ANIMAL ID | 004111 | 004422 | 004421 | 004433 | 004432 | 004441 | 004442 | 004451 | 004452 | 004461 | 004462 | 004471 | 004472 | 004481 | 004482 | 004491 | 004492 | 004501 | 004502 | 004511 | 004512 | 004521 | 004522 | 004531 | 004532 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Cecum | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Perforation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | X | | X | X | | | | | | | | | | | | | | | | | | | | |
| Clear Cell Focus | | | | X | | | X | X | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | X | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|------------------|------------------|------------------|
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8 | | | 0
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2 | 0
7
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8 | 0
7
2
8 |
| Infiltration Cellular, Mononuclear Cell
Inflammation, Chronic Active | | | 1 | | 1 | 1 | | | 1 | 2 | 2 | | 1 | 1 | 1 | 2 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| Mineralization | | | | | | | | | | | 1 | | | | | | | | | | | | | | | |
| Mixed Cell Focus | | | | X | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tension Lipidosis | | | | 2 | | | | | | 4 | | | | | | | 4 | | | | | | | | 4 | |
| Vacuolization Cytoplasmic | | 3 | | | | | | | 1 | 2 | | | | | 2 | | 1 | | 2 | | | | | 2 | 2 | |
| Bile Duct, Hyperplasia | | | 1 | | | 1 | | | | 3 | | | | | 1 | 1 | | | | | | | | 2 | 1 | |
| Biliary Tract, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatocyte, Necrosis | 1 | | | | | | | | | | | | | | | | | | | | | | | 3 | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Lymphocyte | | | 1 | 2 | 2 | | | 1 | 2 | | 2 | | | 1 | | 1 | 1 | 1 | 1 | 2 | | | 1 | 3 | 2 | |
| Inflammation, Chronic Active | | | | | | 1 | 2 | | | | | 2 | | | | | | | | | 3 | | | | | |
| Lipomatosis | | | | 3 | | | | | | 2 | | | | | | | 3 | | | | | | 2 | | 2 | |
| Pigmentation | | | | 2 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | | | | 1 | | 2 | | | | | 1 | | |
| Acinus, Degeneration | | | 2 | 3 | 3 | 1 | 2 | | 2 | 3 | 2 | 2 | 1 | 3 | 1 | 1 | 1 | 1 | 3 | 4 | 2 | 4 | 2 | | | |
| Stomach, Forestomach | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |

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Bisphenol A

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2 Year Animals

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|---|-----------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|----------------------|
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2 | 0
0
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5 | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | | 3 | | | 1 | 1 | | | 1 | | 1 | 1 | | | 1 | 1 | | | 2 | 1 | 1 | | | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | 1 | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | | | | 3 | | | | | | | | | | | 2 | | | | | | | |
| Degeneration, Cystic | | 4 | | 4 | | 3 | | 1 | 2 | | 1 | 1 | 4 | 4 | | 4 | | 3 | 3 | | 1 | | 4 | 4 |
| Fibrosis | | | | | | | | | | | | | | | | | | | 2 | | | | | |
| Hyperplasia | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | 1 | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | X | | |
| Hyperplasia | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | 4 | 4 | |

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Bisphenol A

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2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | |
|--|------------------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|---|---|
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | |
| | | 1 | 6 | 4 | 5 | 6 | 6 | 5 | 5 | 5 | 4 | 5 | 6 | 5 | 5 | 7 | 6 | 6 | 6 | 5 | 7 | | 7 | 7 | 7 |
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | | 3 | 3 | 3 | 9 | 1 | 4 | 0 | 1 | 4 | 4 | 2 | 7 | 4 | 4 | 1 | 2 | 4 | 1 | 1 | 4 | 2 | 2 | 2 | 2 |
| | | 9 | 2 | 5 | 4 | 6 | 5 | 8 | 5 | 2 | 2 | 5 | 2 | 0 | 0 | 5 | 8 | 7 | 1 | 0 | 2 | 7 | 7 | 8 | 9 |
| F1 25.0 BPA F | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 |
| | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | |
| | | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 4 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |

Pars Distalis, Cyst X X X
 Pars Distalis, Hyperplasia 4 3 3 4 3 4 4 3 3
 Pars Distalis, Hypertrophy
 Pars Intermedia, Cyst X

Thyroid Gland +
 Ultimobranchial Cyst X
 C-cell, Hyperplasia 2 2 3 2 1 1 1
 Follicular Cell, Hyperplasia 4 2 3

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

Clitoral Gland +
 Hyperkeratosis 4 4
 Inflammation, Suppurative 2 4 4
 Duct, Dilatation 4 4 4

Ovary +
 Atrophy 2 4 2 2 4 3 2 2 3 2 2 4 2 3 2 2 2 2 3 2 2 2 2
 Cyst
 Hyperplasia, Sertoliform
 Bilateral, Follicle, Cyst X
 Follicle, Cyst X

Oviduct +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|-----------|----------------------|
| | 0139 | 0162 | 0145 | 0159 | 0166 | 0166 | 0155 | 0155 | 0155 | 0144 | 0155 | 0166 | 0155 | 0155 | 0177 | 0166 | 0166 | 0155 | 0177 | 0177 | 0177 | 0177 | 0155 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00411111 | | |

Renal, Infiltration Cellular, Plasma Cell

Lymph Node, Mandibular
 Degeneration, Cystic
 Infiltration Cellular, Plasma Cell

+ + +

Lymph Node, Mesenteric
 Degeneration, Cystic
 Histiocytosis
 Infiltration Cellular, Plasma Cell

+

Spleen
 Hematopoietic Cell Proliferation
 Hyperplasia, Lymphoid
 Necrosis
 Pigmentation

+
 3 4 4 3 4 3 4 3 4 3 2 2 3 2 1 2 2 4 2
 3
 4 2 3 1 1 2 1 3 1 3 4 2 2 4

Thymus
 Atrophy

A + + + + + + + + + + + + + + + + M + + + + +
 4 3 4 4 4 3 2 3 3 4 3 4 3 4 4 4 4 4 4 4 4 4 4

INTEGUMENTARY SYSTEM

Mammary Gland
 Atypical Focus
 Hyperplasia, Lobular
 Alveolus, Dilatation
 Duct, Dilatation

+
 1 3 3 3 4 2 4 4 3 3 2 4 4 4 4 2
 2 2

Skin
 Epithelium, Foot, Hyperplasia

+ + + + + + + +
 4 4 4 3

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--------------------------|-----------|----------------------|
| | 0139 | 0162 | 0145 | 0159 | 0166 | 0156 | 0155 | 0155 | 0154 | 0154 | 0156 | 0155 | 0155 | 0157 | 0166 | 0166 | 0166 | 0165 | 0177 | 0177 | 0177 | 0177 | 0175 | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 004111111111111111111111 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|--|--|--|--|--|--|--|---|---|--|--|--|--|--|---|--|--|--|--|--|--|--|--|---|
| Foot, Bacterium | | | | | | | | X | X | | | | | | | | | | | | | | | |
| Foot, Edema | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Foot, Fibrosis | | | | | | | | 4 | 4 | | | | | | 4 | | | | | | | | | 4 |
| Foot, Inflammation, Chronic Active | | | | | | | | 4 | 4 | | | | | | 4 | | | | | | | | | 4 |
| Foot, Necrosis | | | | | | | | 4 | 4 | | | | | | 4 | | | | | | | | | 4 |
| Foot, Ulcer | | | | | | | | 4 | 4 | | | | | | 4 | | | | | | | | | 4 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Skeletal Muscle | + | | | | | | | | | | | | | | | | | | | | | | | |
| Diaphragm, Hernia | | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Compression | | 1 | | | | | | 3 | | | | | | | | | | | | | | | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cyst | | | | | X | | | | | | | | | | | | | | | | | | | |
| Ventricle, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | + |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | |
|--|-----------|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|------|------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | ANIMAL ID | 0139 | 0162 | 0045 | 0056 | 0066 | 0055 | 0055 | 0055 | 0044 | 0055 | 0066 | 0055 | 0055 | 0077 | 0066 | 0066 | 0055 | 0077 | 0077 | 0077 | | 0077 | 0055 | |
| | | 0033 | 0033 | 0033 | 0099 | 0014 | 0044 | 0001 | 0014 | 0044 | 0022 | 0077 | 0044 | 0044 | 0011 | 0022 | 0044 | 0011 | 0011 | 0044 | 0022 | | 0022 | 0022 | 0088 |
| | | 0099 | 0022 | 0055 | 0044 | 0066 | 0055 | 0088 | 0055 | 0022 | 0022 | 0055 | 0022 | 0000 | 0055 | 0088 | 0077 | 0011 | 0000 | 0022 | 0077 | 0077 | 0088 | 0088 | |
| | | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0002 | 0004 | 0004 | 0004 | 0004 | 0004 | |
| | | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0044 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 0066 | 0066 | 0066 | 0066 | 0077 | 0077 | 0077 | 0077 | 0077 | |
| | | 0011 | 0011 | 0022 | 0023 | 0034 | 0044 | 0055 | 0077 | 0088 | 0099 | 0099 | 0000 | 0000 | 0011 | 0022 | 0011 | 0011 | 0033 | 0034 | 0044 | 0044 | 0055 | | |
| | | 0011 | 0022 | 0011 | 0022 | 0031 | 0032 | 0041 | 0042 | 0051 | 0052 | 0071 | 0072 | 0081 | 0082 | 0091 | 0092 | 0001 | 0002 | 0011 | 0022 | 0011 | 0022 | | |

Eye +
 Cataract 4
 Retina, Degeneration 3

URINARY SYSTEM

Kidney +
 Accumulation, Hyaline Droplet 4
 Casts Protein 1 1 1
 Mineralization 1 1 1 1 2 2 1 2 2 1 1 1 1
 Nephropathy 2 1 1 1 1 1 1 1 1 1
 Cortex, Cyst X X X X X
 Renal Tubule, Cyst X X X X X X X X
 Transitional Epithelium, Hyperplasia 1 2 1 1

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | 0500 | 0388 | 0506 | 0310 | 0722 | 0582 | 0774 | 0775 | 0669 | 0778 | 0469 | 0618 | 0492 | 0758 | 0778 | 0778 | 0468 | 0443 | 0622 | * TOTALS |
| | ANIMAL ID | 04752 | 04761 | 04762 | 04771 | 04772 | 04781 | 04782 | 04783 | 04784 | 04785 | 04786 | 04787 | 04788 | 04789 | 04790 | 04791 | 04792 | 04793 | 04794 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-------|
| Esophagus | + | + | + | + | | + | | | + | + | + | + | | | | | | | + | + | 32 | | |
| Intestine Large, Cecum | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Perforation | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Intestine Large, Colon | + | + | + | + | | + | | | + | + | + | + | | | | | | | + | + | 31 | | |
| Intestine Small, Ileum | + | + | + | + | | + | | | + | + | + | + | | | | | | | + | + | 31 | | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 2 | 1 2.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | | + | 2 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | 4 | 1 4.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 3 | 1 3.0 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | 3 | 5 2.2 |
| Basophilic Focus | X | | | | | | X | X | | | | X | X | | X | X | | | | | 15 | | |
| Clear Cell Focus | | | | | | X | | X | X | | X | | | | X | | | | | | 12 | | |
| Degeneration, Cystic | 1 | | | | 1 | 1 | | | | | | | | 1 | | | | | | 1 | 6 | 1.0 | |
| Fatty Change | | | | | 2 | | | | 2 | 2 | 2 | 3 | 3 | 1 | 1 | | | | | | 15 | 2.3 | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | 3 | 1.0 | |
| Hepatodiaphragmatic Nodule | | | | | | | X | X | X | | | | | | | | | | X | | 6 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|---|----|-----|
| | 050 | 038 | 050 | 031 | 072 | 058 | 072 | 075 | 067 | 077 | 046 | 061 | 049 | 052 | 078 | 077 | 072 | 078 | 043 | 062 | | | | |
| ANIMAL ID | 047 | 044 | 044 | 044 | 044 | 066 | 066 | 066 | 066 | 066 | 066 | 066 | 066 | 066 | 088 | 088 | 088 | 088 | 088 | 088 | * TOTALS | | | |
| Infiltration Cellular, Mononuclear Cell | | | | 1 | | 1 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 1 | 2 | | | 1 | 1 |
| Inflammation, Chronic Active | | | | 1 | | | | | | | | | | | | | | | | | | | 2 | 1.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Pigmentation | | | | | 2 | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Tension Lipidosis | | | | | | | | | | | | | 3 | | 4 | | | | 4 | | 4 | | 8 | 3.6 |
| Vacuolization Cytoplasmic | 1 | 2 | | | | | | 1 | | | | | | | | | | | 2 | 2 | 1 | | 14 | 1.7 |
| Bile Duct, Hyperplasia | | | | 2 | 3 | | 2 | 1 | 2 | | | 1 | | | | | | 2 | 2 | 3 | | | 16 | 1.8 |
| Biliary Tract, Fibrosis | | | | 1 | | 1 | | | | | 1 | | | | | | | | | 2 | | | 4 | 1.3 |
| Hepatocyte, Necrosis | | | | 1 | | | | | | | | | | | | | | | | | | | 3 | 1.7 |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | 1.0 |
| Mesentery | | | | | | | | | | | + | | | | | | | | | | | | 3 | |
| Fat, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | 4 | | 1 | 4.0 |
| Fat, Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | 4 | | 1 | 4.0 |
| Fat, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Fat, Necrosis | | | | | | | | | | 4 | | | | | | | | | | | | | 2 | 4.0 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 46 | |
| Infiltration Cellular, Lymphocyte | 2 | | 2 | | 3 | 2 | 1 | 1 | | 2 | | 2 | 3 | 1 | 1 | 1 | 2 | 2 | 1 | | 1 | | 31 | 1.6 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 4 | 2.0 |
| Lipomatosis | | | | | | | | | | 2 | | | | | | | | | 2 | | 3 | | 8 | 2.4 |
| Pigmentation | | | | | | | | | | | 1 | | 1 | 1 | | | | | | | 1 | | 14 | 1.1 |
| Acinus, Degeneration | 2 | 1 | 3 | | 3 | 2 | 2 | 1 | | 3 | | 2 | 4 | 2 | 2 | | 3 | 2 | 1 | | 1 | | 35 | 2.2 |
| Stomach, Forestomach | + | + | + | + | | + | + | | + | | | + | + | + | + | | | | | | + | + | 34 | |
| Cyst Epithelial Inclusion | | | | | | | X | | | | | | | | | | | | | | | | 1 | |
| Stomach, Glandular | + | + | + | + | | + | | + | | | | + | + | + | + | | | | | | + | + | 31 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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Experiment Number: 10034 - 04

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 5 | 3 | 5 | 3 | 7 | 5 | 7 | 7 | 6 | 7 | 7 | 4 | 6 | 4 | 5 | 7 | 7 | 7 | 4 | 6 |
| | | 5 | 8 | 0 | 1 | 2 | 8 | 2 | 2 | 7 | 2 | 2 | 6 | 1 | 9 | 5 | 2 | 2 | 2 | 8 | 8 |
| | | 0 | 8 | 6 | 0 | 7 | 2 | 4 | 5 | 9 | 8 | 9 | 8 | 0 | 2 | 8 | 8 | 8 | 3 | 2 | 2 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 |
| | | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 7 | 7 |
| | | 5 | 6 | 6 | 7 | 7 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 0 |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |
| * TOTALS | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Cardiomyopathy | 1 | | 1 | | 2 | 1 | 1 | 1 | | | 1 | | | | 1 | 2 | 1 | 2 | 1 | 2 | 24 | 1.3 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | |
| Angiectasis | 2 | | | 2 | | | | | | | | | | | 2 | | | | | 2 | 6 | 2.2 |
| Degeneration, Cystic | 2 | 1 | | | 3 | 4 | | | | 2 | 4 | 2 | | | | 4 | 4 | 4 | 1 | 2 | 27 | 2.8 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Hyperplasia | | | | | | | | | 1 | | | | | | | | | | | | 2 | 1.5 |
| Hypertrophy | 3 | | | | | | | | | 1 | | | | | | | | | | | 2 | 2.0 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hyperplasia | | | | | | 2 | | | | | | | | | | | | | | 1 | 3 | 1.7 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | |
| Hyperplasia | | | | | | | | | 2 | | | | | | | | | | 1 | | 3 | 1.7 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Angiectasis | | | | | | | | | | | 4 | | | | | | | | | 4 | 4 | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-----|-----|
| | 0500 | 0388 | 0580 | 0301 | 0722 | 0582 | 0774 | 0775 | 0672 | 0772 | 0646 | 0761 | 0779 | 0688 | 0495 | 0722 | 0778 | 0778 | 0472 | 0683 | | | |
| ANIMAL ID | 04752 | 04761 | 04762 | 04771 | 04772 | 06661 | 06662 | 06665 | 06666 | 06668 | 06668 | 06668 | 06668 | 06668 | 06668 | 06668 | 08867 | 08866 | 08869 | 08892 | | | |
| Pars Distalis, Cyst | | | | | | | | X | | | | | | | | X | | X | | | 7 | | |
| Pars Distalis, Hyperplasia | 4 | 3 | 4 | 2 | 3 | 4 | | 3 | 4 | | 4 | 4 | 3 | 4 | | 4 | | 4 | 3 | | 32 | 3.4 | |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | 2 | | | | | 1 | 2.0 | |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Ultimobranchial Cyst | | X | | | | X | | | | | | | X | | | | X | | | | 6 | | |
| C-cell, Hyperplasia | 2 | 1 | | | | | 1 | 1 | | 3 | 1 | 1 | | | 1 | | | | 2 | 1 | 22 | 1.5 | |
| Follicular Cell, Hyperplasia | | | 2 | | | | | | | | | | | | | | | | | | 4 | 2.8 | |
| GENERAL BODY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| NONE | | | | | | | | | | | | | | | | | | | | | | | |
| GENITAL SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | + | 6 | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | 2 | 4.0 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | 3 | 3.3 | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | 4 | | 4 | 4.0 | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Atrophy | 4 | 2 | 2 | 1 | 2 | 4 | 2 | 3 | 2 | 3 | 3 | 4 | 2 | 4 | 4 | 4 | 2 | 2 | 2 | 3 | 4 | 44 | 2.6 |
| Cyst | | | | X | | | | | | X | X | | | | | | X | | | | 4 | | |
| Hyperplasia, Sertoliform | 1 | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Bilateral, Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Follicle, Cyst | | | | | | | | | | | | | | | | | | | X | | 2 | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|
| | 050 | 038 | 050 | 030 | 072 | 058 | 072 | 076 | 067 | 077 | 046 | 061 | 049 | 052 | 078 | 072 | 077 | 072 | 048 | 062 | |
| ANIMAL ID | 047 | 047 | 047 | 047 | 047 | 066 | 066 | 066 | 066 | 066 | 066 | 066 | 066 | 066 | 088 | 088 | 088 | 088 | 088 | 088 | |

| | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | |
| Atrophy | | | | | 3 | | | | | | | | 3 | | | | | | | | 4 | 2.8 |
| Hyperplasia, Stromal | | 4 | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Metaplasia, Squamous | 4 | | | | | | | | | | | | | 1 | 2 | | | | | | 4 | 2.3 |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Endometrium, Cyst | | | | | | | | | | | | | | | | | | | | 1 | 1 | |
| Endometrium, Hyperplasia | | | | 2 | | | 2 | 2 | | | | | | | | 1 | | | 3 | | 12 | 2.0 |
| Endometrium, Hyperplasia, Cystic | 4 | 3 | 2 | | | 2 | | | 2 | 2 | 2 | 2 | 3 | | 2 | 3 | | 2 | 2 | 4 | 26 | 2.5 |
| Lumen, Dilatation | | | | | | | | | | | 4 | | | | | | | | | 4 | 3 | 4.0 |

| | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | |
| Cyst, Squamous | | | | | | | | | X | | | | | | | | | | | | 1 | |
| Infiltration Cellular, Polymorphonuclear | | 4 | | | | | | | | | | | | 3 | | | 2 | | | 2 | 9 | 2.7 |
| Epithelium, Degeneration | | | | | | | | | | 2 | | | | 3 | | | | | | | 3 | 2.7 |
| Epithelium, Hyperplasia | 3 | | | | | 2 | | | | | 2 | 3 | | | 4 | 4 | | | | 3 | 12 | 2.8 |
| Epithelium, Mucification | | 4 | 3 | 2 | 2 | | 4 | 4 | 3 | 3 | 4 | | 3 | | | | 2 | 4 | 2 | 3 | 34 | 3.3 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Hypocellularity | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 |
| Myeloid Cell, Hyperplasia | | 4 | | | | | | | | | | | | | | | | | | | 2 | 4.0 |

| | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|---|---|--|---|---|---|---|--|--|--|--|---|-----|
| Lymph Node | | | | | | | | | | | + | | + | | | | | | | | 6 | |
| Axillary, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Lumbar, Degeneration, Cystic | | | | | | | | | | 2 | | | | | | | | | | | 1 | 2.0 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | 4 | | | | | | 1 | 4.0 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | 4 | | | | | 4 | 4 | | | | | 3 | 4.0 |
| Popliteal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | 3 | | | | | | | 1 | 3.0 |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | 3 | | | | | | | | 1 | 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
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|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------------|--|
| | 0500 | 0388 | 0506 | 0301 | 0722 | 0578 | 0772 | 0776 | 0679 | 0778 | 0778 | 0469 | 0661 | 0495 | 0722 | 0778 | 0778 | 0778 | 0468 | 0663 | | |
| | 0475 | 0476 | 0477 | 0477 | 0477 | 0668 | 0668 | 0668 | 0668 | 0668 | 0668 | 0668 | 0668 | 0668 | 0886 | 0886 | 0886 | 0886 | 0886 | 0886 | | |
| | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | 21 | | |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|-------------------------------------|
| Renal, Infiltration Cellular, Plasma Cell | 4 | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Lymph Node, Mandibular
Degeneration, Cystic
Infiltration Cellular, Plasma Cell | + | | | | | | | | | | | | | | | | | | | | | 4 1 4.0 3 4.0 |
| Lymph Node, Mesenteric
Degeneration, Cystic
Histiocytosis
Infiltration Cellular, Plasma Cell | + | | | | | | | | | | | | | | | | | | | | | 2 1 4.0 1 4.0 1 4.0 |
| Spleen
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Necrosis
Pigmentation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 46 29 2.4 2 3.5 1 4.0 28 2.5 |
| Thymus
Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 44 43 3.8 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|------------------------------------|
| Mammary Gland
Atypical Focus
Hyperplasia, Lobular
Alveolus, Dilatation
Duct, Dilatation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 46 1 2.0 30 3.1 5 2.0 7 2.1 |
| Skin
Epithelium, Foot, Hyperplasia | + | + | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | | 14 12 3.9 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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| | 050 | 038 | 050 | 030 | 072 | 058 | 072 | 076 | 067 | 077 | 046 | 061 | 049 | 052 | 078 | 078 | 077 | 072 | 048 | 062 | |
| ANIMAL ID | 047 | 047 | 047 | 047 | 047 | 068 | 068 | 068 | 068 | 068 | 068 | 068 | 068 | 068 | 088 | 088 | 088 | 088 | 088 | 088 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |

| | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|--|---|--|--|--|--|--|---|--|---|--|--|---|---|---|--|--|--|---|----|-----|
| Foot, Bacterium | | | | | | | | | | | | | | | | | | | | | 2 | |
| Foot, Edema | 4 | | 4 | | | | | | 4 | | 4 | | | | 4 | | | | | 3 | 8 | 3.9 |
| Foot, Fibrosis | 4 | | 4 | | | | | | 4 | | 4 | | | 4 | 4 | | | | | 4 | 12 | 4.0 |
| Foot, Inflammation, Chronic Active | 4 | | 4 | | | | | | 4 | | 4 | | | 3 | 4 | 4 | | | | 4 | 12 | 3.9 |
| Foot, Necrosis | 4 | | 4 | | | | | | 4 | | 4 | | | | 4 | 4 | | | | 4 | 10 | 4.0 |
| Foot, Ulcer | 4 | | 4 | | | | | | 4 | | 4 | | | 3 | 4 | 4 | | | | 4 | 11 | 3.9 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | 2 |
| Diaphragm, Hernia | | | | | | | | | | | | | | | | | | | | | 1 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|-----|
| Brain, Brain Stem
Compression | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | 7 | 1.6 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Brain, Cerebrum
Cyst
Ventricle, Dilatation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | 1 | 1.5 |
| Nerve Trigeminal
Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | 2 | 2 | 1.0 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | 2 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|-------|-------|-------|-------|-------|-------|
| | 0599 | 0472 | 0758 | 0568 | 0772 | 0777 | 0777 | 0552 | 0554 | 0447 | 0664 | 0772 | 0663 | 0666 | 0551 | 0559 | 0776 | 0772 | 0668 | 0337 | | 0776 | 0660 | 0667 | 0660 | 0772 | 0663 |
| ANIMAL ID | 00572 | 00581 | 00582 | 00591 | 00592 | 00601 | 00602 | 00606 | 00606 | 00606 | 00617 | 00617 | 00627 | 00627 | 00627 | 00627 | 00627 | 00627 | 00627 | 00627 | 00644 | 00644 | 00644 | 00644 | 00644 | 00644 | 00644 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | | + | + | | + | | + | + | + | + | | + | + | + | + | + | | + | + | | + | + | | + | + |
| Intestine Large, Colon | + | A | | + | + | | + | | + | + | + | + | | + | A | + | + | + | | + | + | | + | + | | + | + |
| Intestine Small, Ileum | + | A | | + | + | | + | | + | + | + | + | | + | A | + | + | + | | + | + | | + | + | | + | + |
| Intestine Small, Jejunum | + | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | 2 | 4 | | | | | | 2 | | | | | | | | | | | | | |
| Basophilic Focus | | X | | | X | | | X | | | X | X | | X | | | | | | X | X | X | | | | | |
| Clear Cell Focus | | | | | | | X | | | | | | X | | | | | | | X | | X | X | X | | | |
| Degeneration, Cystic | | | | | 1 | | | | | | | | | | | | | | | 1 | | | | | | | |
| Fatty Change | | | | | 3 | 2 | 2 | | | | | 4 | 2 | | | | | | | 2 | | | | | | | 3 |
| Hematopoietic Cell Proliferation | | | | | | | | | | 1 | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | X | | | | | | |
| Infiltration Cellular, Mononuclear Cell | | | 1 | | 1 | 1 | 1 | | 2 | | 1 | | 1 | 1 | | 1 | 2 | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mitotic Alteration | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | | | | | | | X | | | | | | | | | | | | | | | | | X | | | |
| Tension Lipidosis | | | | | 4 | 2 | | | | | | | 3 | | | | | | | | | | | | | | 2 |
| Vacuolization Cytoplasmic | | | 1 | | 2 | | | | 1 | | | | 1 | | 1 | | | | 1 | | | | | | 3 | | |
| Bile Duct, Hyperplasia | 1 | | 3 | | 2 | | 2 | | | | | 2 | | | 1 | 3 | 1 | | | | 2 | | | 2 | | 1 | 1 |
| Biliary Tract, Fibrosis | 1 | | | | | | | | 1 | | | | | | | 1 | | | | | 1 | | | | | | 1 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|----------------------|-------|
| | 0599 | 0477 | 0727 | 0588 | 0677 | 0777 | 0777 | 0777 | 0555 | 0555 | 0444 | 0666 | 0777 | 0666 | 0666 | 0555 | 0555 | 0777 | 0666 | 0376 | | | 0766 |
| | 00579 | 00477 | 00727 | 00588 | 00677 | 00777 | 00777 | 00777 | 00555 | 00555 | 00444 | 00666 | 00777 | 00666 | 00666 | 00555 | 00555 | 00777 | 00666 | 00376 | 00766 | 00666 | 00667 |
| | 00579 | 00477 | 00727 | 00588 | 00677 | 00777 | 00777 | 00777 | 00555 | 00555 | 00444 | 00666 | 00777 | 00666 | 00666 | 00555 | 00555 | 00777 | 00666 | 00376 | 00766 | 00666 | 00667 |

Oval Cell, Hyperplasia

1

Mesentery

+

Fat, Necrosis

4

Pancreas

Basophilic Focus

Infiltration Cellular, Lymphocyte

Inflammation, Chronic Active

Lipomatosis

Pigmentation

Acinar Cell, Hyperplasia

Acinus, Degeneration

Stomach, Forestomach

Inflammation, Chronic Active

Ulcer

Stomach, Glandular

Mineralization

CARDIOVASCULAR SYSTEM

Blood Vessel

Mineralization

Heart

Cardiomyopathy

Mineralization

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | 0599 | 0477 | 0722 | 0588 | 0677 | 0777 | 0777 | 0555 | 0555 | 0444 | 0666 | 0777 | 0666 | 0666 | 0555 | 0555 | 0777 | 0666 | 0333 | 0777 | 0666 | 0666 | 0777 | females
(cont...) |
| | ANIMAL ID | 00572 | 00581 | 00582 | 00591 | 00592 | 00601 | 00602 | 00606 | 00607 | 00612 | 00613 | 00614 | 00617 | 00618 | 00621 | 00622 | 00627 | 00628 | 00641 | 00642 | 00648 | 00649 | 00651 | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Adrenal Cortical Nodule | | | | | | | X | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | 2 | | 2 | | | | | 2 | | | | | |
| Degeneration, Cystic Fibrosis | 4 | | 4 | 2 | 4 | 1 | 4 | 4 | 4 | 4 | | | 4 | 4 | | | | 2 | 2 | | | 2 | | 4 |
| Hyperplasia | | | | | | | | | 1 | | | | | | | 2 | | | | | | | | |
| Hypertrophy | | | | | | | | | | | | | | | 1 | | | | | | | 2 | | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | 2 | | | | | | | | | | 3 | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | 1 | | | | 4 | | | | | | | | | | | | | | 1 | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | 2 | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | 4 | | | | 4 | | | | | | | | | | 4 | | | 4 | | 4 | | | | |
| Pars Distalis, Cyst | | | | | | X | | X | X | | | | | | | | | | | | | | X | |
| Pars Distalis, Hyperplasia | | | 2 | | 4 | | | 2 | 4 | 3 | | 2 | | | | | 4 | | 1 | | 3 | | 3 | 2 |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | | X | |
| Rathke's Cleft, Cyst | | | | | | | | | | | | | X | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|----------------------|-------|-------|
| | 0599 | 0477 | 0756 | 0588 | 0672 | 0770 | 0772 | 0777 | 0555 | 0554 | 0466 | 0776 | 0666 | 0666 | 0555 | 0559 | 0776 | 0667 | 0378 | 0776 | | | 0666 | 0667 |
| | 00579 | 00477 | 00756 | 00588 | 00672 | 00770 | 00772 | 00777 | 00555 | 00554 | 00466 | 00776 | 00666 | 00666 | 00555 | 00559 | 00776 | 00667 | 00378 | 00776 | 00666 | 00667 | 00770 | 00665 |
| | 00579 | 00477 | 00756 | 00588 | 00672 | 00770 | 00772 | 00777 | 00555 | 00554 | 00466 | 00776 | 00666 | 00666 | 00555 | 00559 | 00776 | 00667 | 00378 | 00776 | 00666 | 00667 | 00770 | 00665 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | 4 | | 3 | 2 | | | | | | | | 3 | | | | 4 | | | | | | | | |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Cyst | | | | | | | | | X | | | X | | | | | | | | | | | | |
| Endometrium, Hyperplasia | | | 2 | | | 1 | 1 | 1 | 2 | | | | | | | | 2 | | | | | | 2 | 2 |
| Endometrium, Hyperplasia, Cystic | | | | | 1 | | | | | 3 | 2 | 3 | | 2 | | 2 | | | 2 | 3 | 2 | 3 | 4 | |
| Lumen, Dilatation | | | | | | | | | | | 4 | | | 3 | | | | | 4 | | | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | 4 | | 3 | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | 3 | | | | | | 2 | | | | | | 2 |
| Epithelium, Degeneration | | | | | | | | | | | | | | | | | 2 | | | | 3 | | | |
| Epithelium, Hyperplasia | | | 3 | | 2 | | | | | 3 | | | | | | 2 | 3 | | 2 | | | | | |
| Epithelium, Mucification | | | | 4 | 2 | 4 | 4 | 4 | 3 | 2 | 4 | 4 | 3 | 4 | 4 | 3 | | 2 | 3 | 4 | 4 | | 4 | 3 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hypocellularity | | | | | | | | | | | | | | | 3 | | | | | | | | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | + | | | | | + | | + | | + | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | |
| Inguinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | 4 | | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | 4 | | 4 | | | | | | | | | | | | | | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | 3 | | 4 | | | | | | | | | | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Pancreatic, Degeneration, Cystic | 4 | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|-------|-------|-------|-------|-------|-------|-------|
| | 0599 | 0479 | 0727 | 0583 | 0687 | 0724 | 0779 | 0777 | 0827 | 0584 | 0554 | 0465 | 0745 | 0638 | 0635 | 0661 | 0596 | 0552 | 0772 | 0668 | | 0377 | 0760 | 0670 | 0663 | 0720 | 0662 | 0703 |
| ANIMAL ID | 00572 | 00581 | 00582 | 00591 | 00592 | 00601 | 00602 | 00606 | 00606 | 00606 | 00607 | 00607 | 00607 | 00607 | 00607 | 00607 | 00607 | 00607 | 00607 | 00607 | 00607 | 00607 | 00607 | 00607 | 00607 | 00607 | 00607 | 00607 |

Pancreatic, Hyperplasia, Lymphoid
 Renal, Degeneration, Cystic
 Renal, Infiltration Cellular, Plasma Cell

4

Lymph Node, Mandibular
 Degeneration, Cystic
 Infiltration Cellular, Plasma Cell

+
4
4

Spleen
 Hematopoietic Cell Proliferation
 Hyperplasia, Lymphoid
 Pigmentation

+
 3 3 3 2 2 2 2 4 1 2 2 1 1 2 1 1 3 2 2 2 3 4 1
 3 2 1 2 2 2 1 3 2 1 4 1 1 3 2 2 2 3 4 1

Thymus
 Atrophy
 Cyst
 Epithelial Cell, Hyperplasia

+
 4 3 4 4 4 4 4 4 4 3 3 4 4 4 4 4 4 4 4 4 4 4 4 4
 X X
 4

INTEGUMENTARY SYSTEM

Mammary Gland
 Atypical Focus
 Hyperplasia, Lobular
 Inflammation, Chronic
 Alveolus, Dilatation
 Duct, Dilatation

+
 2 2 3 4 2 3 2 2 3 4 3 4 2 4 4 3 3 3 4
 3 4 2 3 4 2 3 2 2 3 4 3 4 2 4 4 3 3 3 4
 4 4
 2
 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2

Skin
 Cyst Epithelial Inclusion
 Inflammation, Suppurative

+
 X X
 2

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 04
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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | females
(cont...) |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------------------------|-----------|----------------------|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 5 | 4 | 7 | 5 | 6 | 7 | 7 | 7 | 5 | 5 | 4 | 6 | 7 | 6 | 6 | 6 | 5 | 5 | 7 | 6 | 3 | 7 | 6 | 6 | 7 | 000000000000000000000000 | | |
| | 9 | 7 | 2 | 8 | 8 | 2 | 0 | 2 | 8 | 1 | 7 | 4 | 2 | 3 | 3 | 1 | 9 | 6 | 2 | 0 | 7 | 2 | 7 | 0 | 2 | 000000000000000000000000 | | |
| | 9 | 9 | 7 | 3 | 7 | 4 | 9 | 7 | 4 | 4 | 5 | 5 | 8 | 6 | 5 | 5 | 6 | 2 | 7 | 8 | 8 | 7 | 0 | 3 | 5 | 000000000000000000000000 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 000000000000000000000000 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 000000000000000000000000 | | |
| | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 5555566667777777778899999 | | |
| | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 1 | 1 | 7889900111334455667799900111 | | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2121212121212121212121212121 | | |

Respiratory Epithelium, Hyperplasia, Goblet Cell

2 2

Trachea

+ + + + + + + + + + A + + + + + +

SPECIAL SENSES SYSTEM

Ear

+

URINARY SYSTEM

Kidney

+ +

Casts Protein

1 2 1

Infiltration Cellular, Polymorphonuclear

Mineralization

1 1 1 1 1 1 1 1 1 1 2 2 1 1 1

Nephropathy

1 1 3 1 2 3 1 1 1 1 1 1 1 2 1

Cortex, Cyst

X X X X X X X X X X X X X X X

Renal Tubule, Cyst

X X X X X X X X X X X X X X X

Renal Tubule, Vacuolization Cytoplasmic

Transitional Epithelium, Hyperplasia

2 1 1 1

Urinary Bladder

+ +

Lumen, Dilatation

4 3

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
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Experiment Number: 10034 - 04

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0597 | 0618 | 0543 | 0499 | 0708 | 0777 | 0556 | 0583 | 0727 | 0770 | 0527 | 0758 | 0633 | 0778 | 0769 | 0625 | 0567 | 0558 | 0671 | 0446 | 0625 | 0652 | 0664 | 0669 | |
| ANIMAL ID | 04921 | 04922 | 04931 | 04932 | 06681 | 06682 | 06691 | 06692 | 07700 | 07701 | 07710 | 07711 | 07770 | 07771 | 07780 | 07781 | 08880 | 08881 | 08882 | 08883 | 08884 | 08885 | 08886 | 08887 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|--------|
| Esophagus | + | + | + | + | + | | + | + | | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | 36 |
| Intestine Large, Colon | + | + | + | + | + | | + | + | | + | + | | A | + | + | A | + | + | + | + | + | + | + | + | 32 |
| Intestine Small, Ileum | + | + | + | + | + | | + | + | | + | + | | A | + | + | A | + | + | + | + | + | + | + | + | 32 |
| Intestine Small, Jejunum | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Angiectasis | | | | | | 4 | | | | | 2 | | | | | | | | | | | | | | 5 2.8 |
| Basophilic Focus | | X | X | | X | | | | | | X | | X | | | X | | X | | | | | X | | 18 |
| Clear Cell Focus | | | | X | | | X | | | | | | X | | | | | | | | | | X | | 10 |
| Degeneration, Cystic | | | | | | | | | | | 1 | | | | | | | | | | | | | 3 1.0 | |
| Fatty Change | | | | | 3 | | | 3 | | 1 | | 3 | 3 | 2 | | | 3 | | | | | | 3 | | 15 2.6 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | 1 | | | | | 2 1.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | X | | | | | | | | | 2 |
| Infiltration Cellular, Mononuclear Cell | 1 | 1 | 2 | 1 | | | | 1 | 1 | | | 2 | 1 | | | | 1 | 2 | | | | | 1 | 1 | 29 1.2 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 4 | | | 1 4.0 |
| Mineralization | | | | | 1 | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Mitotic Alteration | | | | | | | | | | | | | | | | | | | | | | 3 | | | 1 3.0 |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Tension Lipidosis | | | | | | 4 | | | | 4 | | | | | | | | | | | | | | | 6 3.2 |
| Vacuolization Cytoplasmic | 2 | | | | | | | | 2 | 2 | | | | | | | | | 1 | 3 | | | 2 | | 13 1.7 |
| Bile Duct, Hyperplasia | 2 | | 3 | 1 | 2 | | 1 | | | | | 1 | | | | | | 2 | | | | | | | 18 1.8 |
| Biliary Tract, Fibrosis | | | 2 | | | | | | | | | | | | | | | | | | | | | | 6 1.2 |
| Hepatocyte, Necrosis | 1 | | | | | | | | | | | | | | | | | | | | | 4 | | | 2 2.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|-----|-----|-----|---|-----|
| | 0597 | 0618 | 0543 | 0499 | 0708 | 0777 | 0556 | 0558 | 0723 | 0770 | 0577 | 0663 | 0778 | 0779 | 0625 | 0762 | 0557 | 0661 | 0446 | 0665 | | 0664 | 0669 | | | | | |
| ANIMAL ID | 0492 | 0499 | 0499 | 0499 | 0699 | 0699 | 0699 | 0699 | 0700 | 0700 | 0700 | 0700 | 0700 | 0700 | 0808 | 0808 | 0808 | 0808 | 0808 | 0808 | 0808 | 0808 | | | | | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 3 | 1.0 | | |
| Mesentery Fat, Necrosis | + | | | | | | | | | | | | | | | | | | | | | | | + | 4 | 3 | 2 | 4.0 |
| Pancreas Basophilic Focus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | 1 | | | |
| Pancreas Infiltration Cellular, Lymphocyte | | | 1 | 1 | | | | 1 | 1 | 2 | 3 | | 1 | 1 | | 3 | 1 | | 3 | 1 | 1 | 1 | 2 | 28 | 1.4 | | | |
| Pancreas Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 2.0 | | |
| Pancreas Lipomatosis | | | | | | 2 | | | | | | 4 | 3 | | | | | | | | 2 | 3 | 6 | 3.0 | | | | |
| Pancreas Pigmentation | | | 1 | | | | | | | | 1 | | | | | | | | | | 1 | | 8 | 1.1 | | | | |
| Pancreas Acinar Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 1 | | 3.0 | | | |
| Pancreas Acinus, Degeneration | | | 1 | 2 | | | 1 | 3 | 4 | 3 | 1 | 2 | 2 | | 4 | 1 | | 3 | 2 | 1 | 1 | 2 | 29 | 2.1 | | | | |
| Stomach, Forestomach Inflammation, Chronic Active | + | + | + | + | + | | + | + | | | | + | + | | | | + | + | + | + | + | + | 36 | | 1 | 4.0 | | |
| Stomach, Forestomach Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | |
| Stomach, Glandular Mineralization | + | + | + | + | + | | + | + | | | | + | + | | | | + | + | + | + | + | + | 35 | | 1 | 4.0 | | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel Mineralization | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | 1 | 4.0 | | |
| Heart Cardiomyopathy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | 35 | 1.3 | | |
| Heart Mineralization | | | 1 | | | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | | | 2 | | 1 | 2 | 3 | 1 | 1 | 3.0 | | | |

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Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0597 | 0618 | 0543 | 0499 | 0708 | 0777 | 0556 | 0583 | 0727 | 0770 | 0527 | 0768 | 0673 | 0778 | 0769 | 0625 | 0256 | 0587 | 0571 | 0646 | 0424 | 0665 | | 0654 | 0669 |
| ANIMAL ID | 04921 | 04922 | 04931 | 04932 | 06611 | 06621 | 06661 | 06662 | 07700 | 07701 | 07702 | 07703 | 07704 | 07705 | 07706 | 07707 | 07708 | 07709 | 07710 | 07711 | 07712 | 07713 | 07714 | 07715 | 07716 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Angiectasis | | | | | 2 | 3 | | | | | | | | | | | 2 | | | | | | | | 6 2.2 |
| Degeneration, Cystic Fibrosis | | 1 | 3 | 1 | | 2 | 3 | | 4 | 2 | | 4 | 3 | 1 | 1 | 4 | | 2 | | | 3 | 3 | 4 | | 31 2.9 |
| Hyperplasia | | | | | | | | | | 2 | | | | | | | | | | | | | | | 3 1.7 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | 3 | | | | | | 3 2.0 |
| Metaplasia, Osseous | | | | | | | 2 | | | | | | | | | | | | | | | | | | 1 2.0 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Vacuolization Cytoplasmic | | | | | | 2 | | | | | | 2 | 1 | | | | | | | | | | | | 5 2.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hyperplasia | | | | | | | | | | | 1 | | | | | | | | | | | | | | 4 1.8 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Parathyroid Gland | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | |
| Hyperplasia | | | | | 1 | | | | | | | | | | | | | | | | | 4 | 1 | | 5 2.0 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Angiectasis | | | | | 3 | | | | | 4 | | 4 | | | | | | | | | | | 3 | | 9 3.8 |
| Pars Distalis, Cyst | X | X | X | | | | | | | | | | X | X | | | | X | | | | | | 10 | |
| Pars Distalis, Hyperplasia | 3 | 4 | 3 | 4 | | | 4 | 3 | 4 | | 4 | | 4 | | | | 2 | 4 | 4 | 3 | 4 | 4 | | 26 3.2 | |
| Pars Distalis, Hypertrophy | | | | | | | | 2 | | | | | | | | | | | | | | | | 1 2.0 | |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Rathke's Cleft, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|------|-----|-----|
| | 0597 | 0618 | 0543 | 0499 | 0708 | 0777 | 0556 | 0583 | 0727 | 0770 | 0527 | 0768 | 0779 | 0625 | 0769 | 0622 | 0559 | 0587 | 0661 | 0446 | 0625 | 0652 | | 0669 | | |
| ANIMAL ID | 04921 | 04922 | 04931 | 04932 | 04961 | 04962 | 04966 | 04967 | 04970 | 04971 | 04977 | 04978 | 04979 | 04980 | 04981 | 04982 | 04983 | 04984 | 04985 | 04986 | 04987 | 04988 | 04989 | | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 | |
| Ultimobranchial Cyst | | | | | | | | | | | | | | | | | | | X | | | | | 3 | | |
| C-cell, Hyperplasia | | | | 1 | 1 | 2 | 1 | | | 1 | | | 1 | | | | | | 2 | | 1 | 2 | 1 | 2 | 18 | 1.4 |
| Follicular Cell, Hyperplasia | | | | | | | | | | | 2 | | | | | 3 | | | | | 2 | | | 3 | 2.3 | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|--|---|-----|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | 3 | | 1 | 3.0 |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | 7 | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | 6 | 4.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.5 |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 7 | 3.7 |
| Fat Pad, Ovarian/parametrial Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Ovary | | | | | | | | | | | | | | | | | | | | | | | | 49 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | 46 | 2.6 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | 9 | |
| Hyperplasia, Sertoliform | | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.4 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Bilateral, Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Bursa, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | | 7 | |
| Granulosa Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

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| | 0597 | 0618 | 0543 | 0499 | 0708 | 0777 | 0556 | 0583 | 0727 | 0770 | 0577 | 0663 | 0778 | 0779 | 0665 | 0222 | 0559 | 0588 | 0667 | 0446 | | 0665 |
| ANIMAL ID | 04921 | 04922 | 04931 | 04932 | 04981 | 04982 | 04981 | 04982 | 04970 | 04971 | 04977 | 04978 | 04979 | 04988 | 04988 | 04988 | 04988 | 04988 | 04988 | 04988 | 04988 | 04988 |

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Atrophy | | | | | | | | | | | 3 | | | 3 | | | 3 | 2 | | | | | 9 3.0 |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | 1 | | | | 1 1.0 |
| Endometrium, Cyst | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Endometrium, Hyperplasia | | | | 4 | | | | | 1 | 1 | | | | | 1 | | | | 2 | 4 | | | 15 1.9 |
| Endometrium, Hyperplasia, Cystic | 3 | 2 | 1 | | 2 | 1 | 2 | 3 | | | 2 | | 2 | 1 | | | | | | 2 | 2 | | 23 2.2 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | 4 | | | | | | | 4 3.8 |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | 2 3.5 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | 3 2.3 |
| Epithelium, Degeneration | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Epithelium, Hyperplasia | | | 2 | | | 2 | | | | | | | | | | | | | | 2 | | 2 | 10 2.3 |
| Epithelium, Mucification | 2 | 4 | | 4 | 3 | | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 3 | 3 | 4 | | 3 | 3 | 4 | 3 | 4 | 39 3.4 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hypocellularity | | | | | | | | | | | 3 | | | | | | | | | | | | 2 3.0 |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | 4 | | | | | | | | | | | 1 4.0 |
| Lymph Node | | + | | | | | | + | + | | | | | | + | | | | | | | | 8 |
| Degeneration, Cystic | | | | | | | | | 4 | | | | | | | | | | | | | | 1 4.0 |
| Inguinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | 2 4.0 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | 3 | | | | | | | | | | | | | 3 3.3 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | 4 | | | | | | 4 | | | | | | | | | | | | | | 3 4.0 |
| Pancreatic, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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| | 0597 | 0618 | 0543 | 0499 | 0708 | 0772 | 0556 | 0553 | 0787 | 0720 | 0577 | 0663 | 0778 | 0729 | 0665 | 0222 | 0597 | 0558 | 0671 | 0446 | | 0625 | 0652 | 0664 |
| ANIMAL ID | 04921 | 04922 | 04931 | 04932 | 06681 | 06682 | 06662 | 06666 | 07700 | 07700 | 07700 | 07700 | 07700 | 07700 | 08800 | 08800 | 08800 | 08800 | 08800 | 08800 | 08800 | 08800 | 08800 | |
| Inflammation, Granulomatous Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Epithelium, Foot, Hyperplasia | | 4 | | | | | 4 | | | 4 | 4 | | | 4 | | | | | | | | | | 9 4.0 |
| Foot, Edema | | 4 | | | | | | | | | 2 | | | 4 | | | | | | | | | | 6 3.7 |
| Foot, Fibrosis | | 4 | | | | | 4 | | | 4 | 4 | | | 4 | | | | | | | | | | 9 4.0 |
| Foot, Inflammation, Chronic Active | | 4 | | | | | | 3 | | 4 | 4 | | | 4 | | | | | | | | | | 9 3.9 |
| Foot, Necrosis | | 4 | | | | | | | | 4 | 4 | | | 4 | | | | | | | | | | 6 4.0 |
| Foot, Ulcer | | 4 | | | | | | | | 4 | 4 | | | 4 | | | | | | | | | | 8 3.9 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | 1 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Compression | | | | | | | | | | 4 | 4 | | | | | 3 | | | | | | 2 | | 14 2.6 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Ventricle, Dilatation | | | | | | | | | | 2 | 2 | | | | 2 | | | | | | | | | 4 2.0 |
| Nerve Trigeminal | | | | | | | + | | | + | + | + | | + | | | + | + | + | + | | | | 12 |
| Axon, Degeneration | | | | | | | 3 | | | 1 | 2 | 1 | | 1 | | 1 | | 1 | | 1 | | | | 10 1.3 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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| | 0597 | 0618 | 0543 | 0499 | 0708 | 0777 | 0556 | 0558 | 0727 | 0772 | 0557 | 0763 | 0778 | 0658 | 0779 | 0662 | 0555 | 0656 | 0444 | 0666 | 0666 | 0666 | 0666 | 0666 | | |
| ANIMAL ID | 04921 | 04922 | 04931 | 04932 | 04981 | 04982 | 04989 | 04990 | 04991 | 04992 | 04997 | 04998 | 04999 | 05000 | 05001 | 05002 | 05008 | 05008 | 05008 | 05008 | 05008 | 05008 | 05008 | 05008 | 05008 | |
| Peripheral Nerve, Sciatic | | | | | + | | | | | | + | + | + | | + | | | | + | + | + | + | | | 12 | |
| Peripheral Nerve, Tibial | | | | | + | | | | | | + | + | + | | + | | | | + | + | + | + | | | 12 | |
| Spinal Cord, Cervical
Axon, Degeneration | | | | | + | | | | | | + | + | + | | + | 1 | | | + | + | + | + | | | 12
1 1.0 | |
| Spinal Cord, Lumbar
Axon, Degeneration | | | | | + | 3 | | | | | + | 2 | + | + | | + | 1 | | + | 1 | | + | + | + | 12
5 1.6 | |
| Spinal Cord, Thoracic
Axon, Degeneration | | | | | + | | | | | | + | + | + | | + | 1 | | | + | + | + | + | | | 12
1 1.0 | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | | + | + | + | + | + | | + | + | | | + | + | | | + | + | + | + | + | + | + | + | + | 39 | |
| Infiltration Cellular, Histiocyte | 1 | | | | | | | | | | | 2 | | | | | | | | | | | | | 12 1.6 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Metaplasia, Osseous | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Nose | | + | + | + | + | + | | + | + | | + | + | | | + | + | + | + | + | + | + | + | + | 36 | | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | X | | | | X | 5 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | 5 1.6 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 2 | | 1 2.0 | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 1 | | 3 | | | | | | | 2 | | | | 4 | | | | | 1 | 2 | 3 | 1 | 2 | 2 | 12 2.1 | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | 2 | | | | 2 | 2 2.0 | |

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 + .. Tissue examined microscopically
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Respiratory Epithelium, Hyperplasia, Goblet Cell 2 2.0

Trachea 34

SPECIAL SENSES SYSTEM

Ear 1

URINARY SYSTEM

Kidney 49

Casts Protein 5 1.2

Infiltration Cellular, Polymorphonuclear 1 2.0

Mineralization 25 1.3

Nephropathy 21 1.7

Cortex, Cyst 7

Renal Tubule, Cyst 15

Renal Tubule, Vacuolization Cytoplasmic 1 3.0

Transitional Epithelium, Hyperplasia 8 1.4

Urinary Bladder 2

Lumen, Dilatation 2 3.5

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Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | 0613 | 0702 | 0702 | 0426 | 0721 | 0647 | 0452 | 0542 | 0442 | 0442 | 0552 | 0552 | 0626 | 0266 | 0722 | 0722 | 0722 | 0523 | 0255 | 0586 | 0466 | 0576 | 0674 | females
(cont...) |
| | ANIMAL ID | 00731 | 00734 | 00741 | 00742 | 00751 | 00752 | 00761 | 00762 | 00771 | 00772 | 00781 | 00782 | 00791 | 00792 | 00801 | 00802 | 00811 | 00812 | 00821 | 00822 | 00831 | 00832 | 00841 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | | + | + | + | + | + | + | + | + | + | A | + | + | | A | | + | A | + | + | + | + |
| Intestine Small, Ileum | + | + | | + | + | + | | A | + | + | + | + | A | + | + | | A | | A | A | + | + | + | + |
| Intestine Small, Jejunum
Diverticulum | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Basophilic Focus | X | X | | | | X | | | X | | | | X | | | | | | | | | | | X |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Mononuclear Cell | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | |
| Tension Lipidosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | |
| Bile Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|
| | 0613 | 0702 | 0727 | 0426 | 0722 | 0618 | 0447 | 0542 | 0444 | 0444 | 0545 | 0552 | 0627 | 0269 | 0260 | 0704 | 0702 | 0707 | 0523 | 0525 | | | 0466 | 0577 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 7 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

Biliary Tract, Cyst
 Biliary Tract, Fibrosis
 Hepatocyte, Necrosis
 Oval Cell, Hyperplasia

X
 2
 1
 1

Mesentery
 Fat, Necrosis

Pancreas
 Basophilic Focus
 Infiltration Cellular, Lymphocyte
 Inflammation, Chronic Active
 Lipomatosis
 Pigmentation
 Acinus, Degeneration

+
 X
 1 2 3 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 2 1
 2
 4
 1 1 2 2 2 2 3 1 1 2 2 2
 2 4 4 4 1 1 2 2 2 2 3 1 1 2 2 2

Stomach, Forestomach

+ +

Stomach, Glandular

+ + + + + + + + + + + A + + A + A + + + +

CARDIOVASCULAR SYSTEM

Blood Vessel
 Intima, Inflammation, Chronic
 Intima, Proliferation

+ +

Heart
 Cardiomyopathy
 Metaplasia, Osseous
 Thrombosis

+
 1 1 1 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 3 2
 1

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Bisphenol A

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2 Year Animals

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Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | 0613 | 0702 | 0702 | 0426 | 0721 | 0647 | 0452 | 0546 | 0442 | 0444 | 0552 | 0552 | 0626 | 0266 | 0722 | 0722 | 0722 | 0525 | 0225 | 0588 | 0466 | 0577 | 0677 | 0674 | females
(cont...) |
| | ANIMAL ID | 00731 | 00732 | 00734 | 00742 | 00751 | 00752 | 00761 | 00762 | 00771 | 00772 | 00781 | 00782 | 00791 | 00792 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | 00799 | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | 4 | | | | | | | | | | 2 | | | | | | | | | 2 | | |
| Degeneration, Cystic | 1 | 2 | 1 | | | 4 | | 4 | 4 | | | 4 | 1 | 2 | | 1 | 4 | 3 | 3 | | | | 1 | | 4 |
| Hyperplasia | | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | 3 | | | | | 2 | | | 2 | | | | | 4 | | | 4 | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | 4 | 2 | 2 | 2 | | 4 | 4 | | 1 | 2 | 4 | 4 | | | 2 | 1 | | | | 4 | | | | 3 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ultimobranchial Cyst | | | | | | | | | X | | | | | X | | | | | | | | | | | |
| C-cell, Hyperplasia | | | | | 2 | 3 | | 1 | | 1 | | 1 | | | | 2 | | | | | | 2 | | | 2 |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
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BLANK .. Not examined microscopically
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|-------|-------|-------|-------|---|
| | 0613 | 0702 | 0707 | 0708 | 0711 | 0712 | 0714 | 0715 | 0716 | 0717 | 0718 | 0719 | 0720 | 0721 | 0722 | 0723 | 0724 | 0725 | 0726 | 0727 | | 0728 | 0729 | 0730 | 0731 | |
| ANIMAL ID | 00731 | 00732 | 00733 | 00734 | 00735 | 00736 | 00737 | 00738 | 00739 | 00740 | 00741 | 00742 | 00743 | 00744 | 00745 | 00746 | 00747 | 00748 | 00749 | 00750 | 00751 | 00752 | 00753 | 00754 | 00755 | |
| Endometrium, Hyperplasia | 2 | | | | | 1 | 2 | | | 2 | | | | | | | | 1 | | 2 | | | 1 | | | |
| Endometrium, Hyperplasia, Cystic Lumen, Dilatation | | 2 | | | 2 | | | | 1 | | | 1 | 3 | 4 | | | 1 | | 3 | | | 4 | | 2 | 2 | |
| Vagina Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Infiltration Cellular, Polymorphonuclear Epithelium, Degeneration | | 4 | | 4 | | | 2 | | | | 2 | | | | | 3 | | 2 | | | | | | | | |
| Epithelium, Hyperplasia | | | 3 | | | | | | | | | 4 | 3 | | | | | | | 4 | | | 2 | | 3 | |
| Epithelium, Mucification | 4 | 4 | | 3 | 4 | 3 | 2 | | 3 | 2 | | | | 4 | | 3 | | 4 | | 2 | | 4 | 3 | | 3 | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow Hypocellularity | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Myeloid Cell, Hyperplasia | | | | 4 | | | | | | | | | | | | | | | | | | 4 | | | | |
| Lymph Node Inguinal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | + | | | | | | + | | | | |
| Lymph Node, Mandibular Degeneration, Cystic Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen Hematopoietic Cell Proliferation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | 1 | 2 | | 2 | 3 | 3 | 2 | 4 | | 2 | 3 | 2 | 2 | | | | | 3 | | | | 1 | 4 | | 1 | 3 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|------|
| | 0613 | 0702 | 0707 | 0426 | 0722 | 0618 | 0447 | 0542 | 0444 | 0444 | 0545 | 0552 | 0626 | 0266 | 0727 | 0900 | 0406 | 0707 | 0707 | 0522 | 0522 | 0403 | 0505 | 0405 | 0506 | | 0607 |
| ANIMAL ID | 00731 | 00733 | 00734 | 00742 | 00751 | 00752 | 00761 | 00762 | 00771 | 00772 | 00777 | 00778 | 00789 | 00799 | 00799 | 00800 | 00801 | 00802 | 00803 | 00809 | 00809 | 00813 | 00813 | 00821 | 00821 | 00822 | |
| Pigmentation | 1 | | 2 | 2 | 1 | | 2 | | 3 | 2 | | 3 | 3 | 3 | | | 3 | 4 | 2 | | 4 | 3 | 3 | 3 | 2 | | |
| Capsule, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | 4 | 3 | 3 | 4 | | |
| Cyst | | | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | |
| Epithelial Cell, Hyperplasia | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atypical Focus | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Hyperplasia, Lobular | 4 | 3 | 1 | | 4 | 2 | 3 | 3 | 2 | 2 | | 2 | 2 | | | 3 | 4 | 4 | 4 | 4 | | 2 | 3 | 4 | 4 | | | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolus, Dilatation | | | | | | | | | 2 | | | | | 2 | 2 | | | | | | | 2 | | 3 | | | | |
| Duct, Dilatation | | | | | | | | | 2 | | | 2 | 3 | 2 | | | | | | | | 3 | | 3 | | | | |
| Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | | | + | | | | | | | | | | + | + | + | | | | | | + | + | | | | | + | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 4 | | | | | | |
| Epithelium, Foot, Hyperplasia | | | 4 | | | | | | | | | 4 | 4 | 4 | | | | | | | | | | | | 3 | | |
| Foot, Bacterium | | | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Edema | | | 4 | | | | | | | | | 4 | | | | 4 | | | | | | | | | | | 3 | |
| Foot, Fibrosis | | | 4 | | | | | | | | | 4 | | 4 | 4 | | | | | | | | | | | | 3 | |
| Foot, Inflammation, Chronic Active | | | 4 | | | | | | | | | 4 | | 4 | 4 | | | | | | | | | | | | 3 | |
| Foot, Necrosis | | | 4 | | | | | | | | | 4 | | | 4 | | | | | | | | | | | | | |
| Foot, Ulcer | | | 4 | | | | | | | | | 4 | | | 4 | | | | | | | | | | | | 4 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | | |
|---|-----------|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------------------|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | | | |
| | | 6 | 7 | 7 | 4 | 7 | 6 | 4 | 5 | 4 | 4 | 4 | 5 | 5 | 6 | 2 | 6 | 7 | 7 | 2 | 5 | | 2 | 5 | 4 | 5 | 6 |
| | | 1 | 0 | 2 | 2 | 2 | 1 | 4 | 6 | 4 | 2 | 7 | 6 | 2 | 7 | 9 | 0 | 4 | 6 | 1 | 8 | 7 | 5 | 8 | 6 | 7 | 7 |
| | | 3 | 2 | 7 | 6 | 7 | 8 | 7 | 2 | 9 | 0 | 4 | 3 | 2 | 2 | 0 | 4 | 6 | 1 | 8 | 7 | 5 | 8 | 6 | 6 | 7 | 4 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 5 | 5 | 5 | 5 | 5 |
| | | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | |
| | | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |

Spinal Cord, Thoracic

+ +

RESPIRATORY SYSTEM

| | |
|--|---|
| Lung | + |
| Congestion | 4 |
| Hemorrhage | 2 |
| Infiltration Cellular, Histiocyte | 1 1 3 3 |
| Metaplasia, Osseous | |
| Pigmentation | 4 |
| Alveolar Epithelium, Hyperplasia | 2 2 |
| Nose | + + + + + + + + + + + + + + + A + + + + |
| Inflammation, Chronic Active | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 2 2 2 |
| Respiratory Epithelium, Hyperplasia, Goblet Cell | |
| Transitional Epithelium, Accumulation, Hyaline Droplet | 2 |
| Trachea | + + + + + + + + + + + A + + + + A + + + + |

SPECIAL SENSES SYSTEM

| | |
|----------------------|--|
| Eye | |
| Cataract | |
| Retina, Degeneration | |
| Zymbal's Gland | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
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RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|----|
| | 04 | 07 | 04 | 06 | 07 | 07 | 07 | 06 | 04 | 06 | 05 | 06 | 06 | 05 | 06 | 04 | 04 | 06 | 07 | 04 | | 07 | 07 | 05 | 05 |
| ANIMAL ID | 08 | 02 | 07 | 04 | 02 | 02 | 02 | 03 | 09 | 01 | 09 | 07 | 08 | 06 | 00 | 08 | 03 | 09 | 03 | 08 | 07 | 07 | 08 | 05 | 08 |
| | 05 | 05 | 05 | 05 | 00 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 09 | 09 |
| | 00 | 00 | 00 | 00 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 00 | 00 | |
| | 07 | 08 | 08 | 09 | 09 | 02 | 02 | 03 | 03 | 04 | 04 | 05 | 05 | 06 | 06 | 06 | 07 | 07 | 08 | 08 | 09 | 09 | 00 | 00 | |
| | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|-------|--------|
| Biliary Tract, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Biliary Tract, Fibrosis | | | | | 1 | | | | | | | | | | | | | | | 2 | | | | | 5 1.4 | | |
| Hepatocyte, Necrosis | | | | | | | | | | | 1 | | | 3 | | | | | | 4 | | | | | 4 2.3 | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 | | |
| Mesentery | | | | | | | | | | | + | + | | | | | | | | | | | + | + | 4 | | |
| Fat, Necrosis | | | | | | | | | | | 4 | 4 | | | | | | | | | | | 4 | 4 | 4 4.0 | | |
| Pancreas | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Infiltration Cellular, Lymphocyte | | | 1 | 1 | | 1 | 1 | | | | | | 3 | | | 2 | 2 | | | 1 | 1 | | 3 | 3 | 2 | 1 | 28 1.5 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 | |
| Lipomatosis | | | | | | | | 3 | | | | | 3 | | | | | | | | | | | | | 3 3.3 | |
| Pigmentation | | | | | | | | | | | | 2 | | | 1 | | | | | | | | | | | 3 1.3 | |
| Acinus, Degeneration | 2 | 1 | 2 | | 1 | 1 | | | | | | 4 | | | 2 | 2 | | | 1 | 2 | 3 | | 4 | 4 | 4 | 2 | 31 2.3 |
| Stomach, Forestomach | + | + | + | + | | | | | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 39 | |
| Stomach, Glandular | + | + | + | + | | | | | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 36 | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Intima, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Intima, Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | | 2 | | 2 | 2 | 1 | 1 | | | | 1 | | | 2 | 2 | 1 | 4 | | 1 | | 1 | 1 | 1 | 1 | 1 | 33 1.4 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Thrombosis | | | | | | | | | | | | X | | | | X | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue

M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|----|
| | 04 | 07 | 04 | 06 | 07 | 07 | 07 | 06 | 04 | 06 | 05 | 06 | 06 | 05 | 06 | 04 | 04 | 06 | 07 | 04 | | 07 | 07 | 05 | 05 |
| ANIMAL ID | 05 | 05 | 05 | 05 | 05 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 09 | 09 | 09 |
| | 00 | 00 | 00 | 00 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 00 | 00 |
| | 07 | 08 | 08 | 09 | 09 | 02 | 02 | 03 | 03 | 04 | 04 | 05 | 05 | 06 | 06 | 06 | 07 | 08 | 08 | 09 | 09 | 02 | 00 | 00 | |
| | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Adrenal Cortex | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 6 3.0 |
| Degeneration, Cystic | | 1 | | 4 | 4 | 2 | 1 | 4 | | 4 | 4 | | | | | 2 | 3 | | | 3 | 1 | 2 | | | 29 2.7 |
| Hyperplasia | | | | | | | 1 | | | | | | | | | | | | | | | | | | 2 1.5 |
| Hypertrophy | | | | 3 | 2 | 2 | | | | | | | | | | | | | | | | | | | 4 2.0 |
| Pigmentation | | 2 | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | 1 | | 2 1.0 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hyperplasia | | | | | | | | | 1 | | 1 | | | | | | | | | | | | | | 3 1.3 |
| Pituitary Gland | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Angiectasis | | 4 | 3 | | | 4 | 4 | | | | | | | | | | | | | | | | | | 9 3.3 |
| Hemorrhage | | | | | | 4 | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | X | | | | | X | | | X | | 3 |
| Pars Distalis, Hyperplasia | 4 | | 4 | | 3 | | | | | | 2 | 2 | | 4 | 4 | 4 | 4 | 3 | 1 | | 2 | 2 | 2 | 3 | 29 2.9 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ultimobranchial Cyst | | X | | | | | | | | | | | | | | | | | | X | | | | | 4 |
| C-cell, Hyperplasia | | 2 | | 3 | 2 | | 2 | | | | 1 | 2 | 2 | 1 | | | | 1 | 1 | | | | 1 | 2 | 20 1.7 |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | 4 | | | | | | | | | | | 1 4.0 |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----|-----|
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9 | 0
6
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1 | 0
5
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9 | 0
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7 | 0
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8 | 0
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6 | 0
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8 | 0
4
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7 | | 0
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8 | 0
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5 | 0
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6 | 0
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2 | | |
| ANIMAL ID | 0
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0 | 0
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0
0
2 | | |
| Pigmentation | | | 3 | 1 | 1 | 4 | 3 | 4 | 4 | 2 | | 2 | 4 | | 2 | | 4 | 3 | 3 | | 2 | 3 | | 4 | 35 | 2.7 | |
| Capsule, Fibrosis | | | | | | | | | | | | | | | | | | | | | 3 | | | | 1 | 3.0 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Atrophy | 3 | 4 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 47 | 3.7 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Epithelial Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Atypical Focus | | | | | | | | | | | | | | | | | | | | | | 1 | 2 | | 3 | 1.7 |
| Hyperplasia, Lobular | 3 | 4 | | 2 | 2 | 4 | 4 | | 2 | 4 | | 2 | 3 | 3 | 4 | | 2 | 3 | 2 | 3 | 4 | 2 | 2 | 3 | 40 | 3.0 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | 4 | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Alveolus, Dilatation | | | 2 | | | | | | | | | | 2 | | | | | | | | | | | | 7 | 2.1 |
| Duct, Dilatation | | | 3 | 2 | | | | | | | | | 3 | | | | | | | | | | | | 9 | 2.6 |
| Duct, Hyperplasia | | | | | | | | | | | | | | | 2 | | | | | | | | | | 1 | 2.0 |
| Skin | + | + | + | | | | | | | | | | | | + | | | | | | + | + | | | 13 | |
| Cyst Epithelial Inclusion | | | X | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Epithelium, Foot, Hyperplasia | 4 | 4 | 4 | | | | | | | | | | | 4 | | | | | | | 4 | 4 | | | 11 | 3.9 |
| Foot, Bacterium | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Foot, Edema | | | 4 | 4 | | | | | | | | | | | | | | | | | | 4 | | | 7 | 3.9 |
| Foot, Fibrosis | 3 | 4 | 4 | | | | | | | | | | | 4 | | | | | | | 4 | 4 | | | 11 | 3.8 |
| Foot, Inflammation, Chronic Active | 4 | 4 | 4 | | | | | | | | | | | 4 | | | | | | | 4 | 4 | | | 11 | 3.9 |
| Foot, Necrosis | | | 4 | 4 | | | | | | | | | | 4 | | | | | | | 4 | | | | 7 | 4.0 |
| Foot, Ulcer | 4 | 4 | 4 | | | | | | | | | | | 4 | | | | | | | 4 | | | | 9 | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04
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 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|---|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|----|----|
| | 04 | 07 | 04 | 06 | 07 | 07 | 07 | 06 | 04 | 06 | 05 | 06 | 06 | 05 | 06 | 04 | 04 | 06 | 07 | 04 | | 07 | 07 | 05 | 05 | 05 |
| ANIMAL ID | 05 | 05 | 05 | 05 | 05 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 07 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 09 | 09 | 09 |
| | 00 | 00 | 00 | 00 | 00 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 00 | 00 | 00 |
| | 07 | 08 | 08 | 09 | 09 | 02 | 02 | 03 | 03 | 04 | 04 | 05 | 05 | 06 | 06 | 06 | 07 | 08 | 08 | 09 | 09 | 09 | 00 | 00 | 00 | |
| | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 01 | 02 | 02 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Cranium, Fracture | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | 50 | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|---|----|---|-----|--|--|----|---|-----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | |
| Compression | 4 | | 3 | | | 1 | | | 2 | | | 3 | | | 2 | | | | | 50 | 13 | 2.7 | | | | | | | | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | 50 | | | | | | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | | | |
| Ventricle, Dilatation | 2 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | 50 | 6 | 1.8 |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | 11 | | | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1.0 | | | | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | 11 | | | | | | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | 11 | | | | | | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | 10 | | | | | | | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | 10 | | | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 2.3 | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
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Bisphenol A

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Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|----------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | 0686 | 0543 | 0527 | 0703 | 0694 | 0728 | 0526 | 0551 | 0553 | 0448 | 0679 | 0668 | 0773 | 0772 | 0776 | 0777 | 0575 | 0666 | 0663 | 0577 | 0557 | 0722 | 0770 | ANIMAL ID | females
(cont...) |
| | ANIMAL ID | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | 3 | | 3 | 2 | | | | | | | | | | | | | 2 | 1 | | | | | | |
| Basophilic Focus | | | | X | X | | | X | | X | | X | | X | X | X | | | | X | | | | | |
| Clear Cell Focus | | | | | X | | | X | | X | | | | | | | | | | | | X | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | 1 | | | | | | | | | | | |
| Fatty Change | 4 | | | 1 | | 3 | 2 | 3 | | | | | 2 | | | 2 | 2 | | | 2 | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Mononuclear Cell | 2 | | | | 1 | 2 | | 1 | 1 | | | 1 | | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 2 | 1 | 1 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | 2 | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | X | |
| Tension Lipidosis | | 4 | | | 4 | | | | | | | | | | 4 | | | | | 4 | | | | | 3 |
| Vacuolization Cytoplasmic | | | | | 2 | | | | 1 | 1 | | 1 | | | | | | 1 | 2 | | | 2 | 1 | | |
| Bile Duct, Hyperplasia | 2 | | | | | | | | | | | | | | 1 | 1 | | 2 | 1 | | 4 | | | | |
| Biliary Tract, Fibrosis | | | | | 1 | | | | | | | | | 1 | | | | | | 2 | | | | | |
| Capsule, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Capsule, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oval Cell, Hyperplasia | 2 | | | | 1 | | | | | | | | | | | | | | | | | | | | |

Mesentery

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0686 | 0543 | 0527 | 0703 | 0694 | 0728 | 0522 | 0558 | 0553 | 0551 | 0493 | 0632 | 0762 | 0668 | 0733 | 0770 | 0772 | 0753 | 0666 | 0663 | 0577 | 0550 | 0557 | 0720 | | |
| | 0091 | 0088 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 889911 | 223311 |

Fat, Necrosis

Pancreas

Basophilic Focus

Infiltration Cellular, Lymphocyte

Inflammation, Chronic Active

Lipomatosis

Pigmentation

Acinus, Degeneration

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | |

Stomach, Forestomach

Ulcer

Epithelium, Hyperplasia

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| 3 | | | 3 | | | | | | | | | | | | | | | 3 | | | | | | |

Stomach, Glandular

Mineralization

Polyarteritis

Epithelium, Hyperplasia

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

CARDIOVASCULAR SYSTEM

Blood Vessel

Mineralization

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

Heart

Cardiomyopathy

Inflammation, Chronic Active

Mineralization

Polyarteritis

Myocardium, Necrosis

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| 2 | 1 | 1 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 2 | 1 | 2 | 1 | | 1 | 1 | | | 1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| | 0686 | 0543 | 0527 | 0703 | 0694 | 0728 | 0522 | 0558 | 0553 | 0551 | 0493 | 0632 | 0762 | 0668 | 0733 | 0770 | 0772 | 0753 | 0666 | 0663 | 0577 | 0557 | 0722 | 0670 | |
| ANIMAL ID | 00891 | 00890 | 00901 | 00901 | 00901 | 00902 | 00902 | 00902 | 00903 | 00903 | 00903 | 00903 | 00903 | 00903 | 00903 | 00903 | 00903 | 00903 | 00903 | 00903 | 00903 | 00903 | 00903 | 00903 | |
| Metaplasia, Squamous | 1 | 3 | 1 | | | 1 | | | | | 1 | | | | | | | | | | | | | | |
| Endometrial Glands, Hyperplasia | | 2 | | | | | | | | | | | | | | | | | | 2 | | | | | |
| Endometrium, Cyst | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia | 1 | | | | | | | | 2 | 3 | | 2 | | 2 | | | | | | 2 | | | 4 | | |
| Endometrium, Hyperplasia, Cystic Lumen, Dilatation | 4 | 3 | 2 | 2 | 2 | | 2 | | 3 | | | 4 | | 2 | | | | 1 | | 3 | 2 | 3 | | 2 3 | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | 2 | | | | 4 | | 2 | | | | 3 | | | | 4 | |
| Epithelium, Degeneration | | | | | | 2 | | | 2 | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | 4 | 3 | | | | | | | | | 3 | | | | | | | | | | 2 | | 2 | |
| Epithelium, Mucification | 2 | | | 4 | 4 | 4 | 4 | 3 | 4 | 2 | 4 | | 3 | 4 | 2 | 2 | 4 | 4 | 2 | 4 | 4 | 4 | 3 | 4 | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hypocellularity | | | | 3 | 4 | 3 | | | | | | | | | | | | | | | | | | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | + | | + | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | 3 | | | 4 | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | 4 | | | 4 | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | 4 | | | | |
| Lymph Node, Mandibular | | | | | | | | | | | + | | | + | | | | | | | + | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | 4 | | | | | | | | | 4 | | | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | 4 | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|-------|-------|
| | 0686 | 0543 | 0557 | 0763 | 0674 | 0758 | 0551 | 0553 | 0555 | 0448 | 0679 | 0763 | 0668 | 0773 | 0777 | 0772 | 0573 | 0666 | 0639 | 0570 | | 0557 | 0772 |
| ANIMAL ID | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 |

Necrosis

Lymph Node, Mesenteric
Degeneration, Cystic
Hemorrhage

+ +
4
2

Spleen
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Pigmentation

+
2 3 3 3 1 1 2 3 1 1 1 2 4 2 1 3 3 2
3
4 2 4 4 2 4 1 2 3 1 1 1 2 2 1 2 4 2 2

Thymus
Atrophy
Cyst

+
4 4 3 4 4 4 4 3 4 4 4 4 4 4 4 4 3 4 4 4 4 4
X X

INTEGUMENTARY SYSTEM

Mammary Gland
Atypical Focus
Hyperplasia, Lobular
Alveolus, Dilatation
Duct, Dilatation

+
2
4 1 4 4 4 2 4 2 4 2 2 4 3 2 4 4 4 2 4 3 3 4
2 3 2 2 2
3 3 2 1 2 3 2

Skin
Inflammation, Chronic Active
Ulcer
Epithelium, Foot, Hyperplasia
Foot, Bacterium
Foot, Edema
Foot, Fibrosis

+
2
3
4 4 4 4 4
X
2 4 4
4 4 4

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|-------|------|
| | 0686 | 0543 | 0527 | 0703 | 0694 | 0728 | 0526 | 0551 | 0553 | 0555 | 0493 | 0639 | 0722 | 0668 | 0673 | 0707 | 0772 | 0573 | 0663 | 0637 | | | 0570 | 0557 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 00891 | |

Foot, Hyperkeratosis 4
 Foot, Inflammation, Chronic Active 4 4 4 4
 Foot, Necrosis 4 4 4
 Foot, Ulcer 4 4 4 4

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Compression | 4 | | | 4 | 3 | | | | | | 1 | | 3 | | 3 | | | | 1 | 4 | | | 4 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ventricle, Dilatation | | | | | 1 | | | | | | | | | | | | | | | | | | 2 |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | 1 | | 1 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | + | + |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | + | + |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | + | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
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 Bisphenol A
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-----------|----------------------|
| | 0686 | 0543 | 0527 | 0703 | 0694 | 0728 | 0522 | 0558 | 0553 | 0551 | 0493 | 0632 | 0762 | 0668 | 0673 | 0720 | 0722 | 0731 | 0566 | 0663 | 0570 | 0557 | 0772 | 0720 | | | |
| | 0089 | 0088 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0099 | 0030 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0033 | 0055 | 0055 | 0055 | 0055 | 0055 | 0055 | 00891 | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|-----|
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Spinal Cord, Lumbar
Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | + + |
| Spinal Cord, Thoracic
Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | | + + |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---------------|
| Lung | + | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | | X X X |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 2 3 2 3 1 2 |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | + | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2 2 1 1 2 2 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1 2 |
| Respiratory Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Respiratory Epithelium, Hyperplasia, Goblet Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Trachea | + | | | | | | | | | | | | | | | | | | | | | | | | | | |

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Bisphenol A

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| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------------------------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | 0686 | 0543 | 0527 | 0703 | 0694 | 0728 | 0556 | 0553 | 0555 | 0446 | 0767 | 0666 | 0776 | 0667 | 0777 | 0777 | 0555 | 0666 | 0666 | 0555 | 0557 | 0777 | females
(cont...) |
| | ANIMAL ID | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | 00891 | |

SPECIAL SENSES SYSTEM

Zymbal's Gland
Inflammation, Suppurative
Thrombosis
Duct, Dilatation

+

URINARY SYSTEM

Kidney

Accumulation, Hyaline Droplet

Casts Protein

Mineralization

Nephropathy

Polyarteritis

Capsule, Fibrosis

Capsule, Inflammation, Chronic Active

Cortex, Cyst

Renal Tubule, Cyst

Transitional Epithelium, Hyperplasia

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | |
| Casts Protein | | | 2 | | | | 2 | | | | | | | | | | | | | | | | |
| Mineralization | 1 | | | 1 | | | 1 | 2 | | | 2 | 1 | | | 2 | 3 | | | 3 | 1 | | 2 | 1 |
| Nephropathy | 3 | 1 | | 2 | 1 | 2 | | | | | 1 | 1 | | 2 | 1 | 1 | 1 | 1 | | 1 | 1 | 1 | 1 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | |
| Capsule, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | |
| Capsule, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | |
| Cortex, Cyst | X | | | | | X | X | | | | | X | | | X | | | | X | | X | | |
| Renal Tubule, Cyst | X | | | | | | | | | X | X | | | | | | | X | | | | | |
| Transitional Epithelium, Hyperplasia | | | | 1 | | | | | | | | | 2 | | | 1 | | | | | | | |

Urinary Bladder

+

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0575 | 0486 | 0651 | 0568 | 0074 | 0778 | 0072 | 0576 | 0770 | 0576 | 0778 | 0454 | 0566 | 0654 | 0555 | 0720 | 0771 | 0774 | 0628 | 0682 | |
| ANIMAL ID | 05232 | 05441 | 05544 | 05555 | 05722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07733 | 07733 | 09111 | 09999 | 09999 | 09999 | 09999 | 09999 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|----|-----|-----|
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | 4 | 3 | 2 | 3.5 | |
| Pancreas | + | | | | | | | | | | | | | | | | | | | | | | 46 | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | 29 | 1.6 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 3 | 1.7 | |
| Lipomatosis | | | | | | | | | | | | | | | | | | | | | | | | 7 | 2.9 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | 8 | 1.3 | |
| Acinus, Degeneration | | | | | | | | | | | | | | | | | | | | | | | 36 | 2.2 | |
| Stomach, Forestomach | + | | | | | | | | | | | | | | | | | | | | | | 39 | | |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3.0 |
| Stomach, Glandular | + | | | | | | | | | | | | | | | | | | | | | | 38 | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|-----|
| Blood Vessel | + | | | | | | | | | | | | | | | | | | | | | | 46 | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Heart | + | | | | | | | | | | | | | | | | | | | | | | 46 | | |
| Cardiomyopathy | | | | | | | | | | | | | | | | | | | | | | | 33 | 1.4 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |
| Myocardium, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|----------|
| | 0575 | 0486 | 0611 | 0568 | 0074 | 0778 | 0072 | 0516 | 0776 | 0770 | 0448 | 0556 | 0664 | 0655 | 0572 | 0771 | 0774 | 0772 | 0682 | | |
| ANIMAL ID | 05232 | 05421 | 05544 | 05555 | 05722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07733 | 07733 | 09111 | 09911 | 09911 | 09911 | 09911 | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Angiectasis | | | | | | | | 2 | | | | | | 2 | | | | | | 2 | | 9 | 2.1 |
| Degeneration, Cystic | | 1 | 2 | 4 | 3 | | 2 | | | 4 | 4 | 1 | | 2 | | 3 | 2 | | 2 | 2 | 31 | 2.6 | |
| Hyperplasia | | | | | | | | | | | | | 2 | | | | | | | | 5 | 1.6 | |
| Hypertrophy | | | | | | | | | | | | | | 1 | | | | | | | 3 | 1.7 | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | 2 | | 2 | 4 | 2.5 | |
| Capsule, Fibrosis | | | | | | | | | | | | | | | | | 2 | | | | 1 | 2.0 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Hyperplasia | | | | | | | | | | | | | | 3 | | | | | | 2 | 4 | 2.3 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | 2 | 2 | 2.5 | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | | |
| Hyperplasia | | | | | | | 1 | | | | | | | 4 | | | 2 | | | 3 | 6 | 2.2 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Angiectasis | | | | | | | | 4 | 4 | | | | | | | | 4 | | 3 | 4 | 9 | 3.7 | |
| Hemorrhage | | | | | | | | | | | | | | | | 4 | | | | | 1 | 4.0 | |
| Pars Distalis, Cyst | | | | | X | | | | | | | | | | | | | | | | 2 | | |
| Pars Distalis, Hyperplasia | 3 | 4 | 3 | | 4 | | 2 | | | 3 | 3 | 2 | 2 | | 1 | 4 | | | | | 23 | 3.1 | |
| Rathke's Cleft, Cyst | | | | | | | X | | | | | | | | | | | | | X | 2 | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | |
| Ultimobranchial Cyst | | X | | | | | | | | X | | | | | | | | | | | 7 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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Experiment Number: 10034 - 04
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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|---------|
| | 0575 | 0486 | 0611 | 0518 | 0064 | 0778 | 0772 | 0506 | 0776 | 0770 | 0468 | 0564 | 0664 | 0555 | 0720 | 0771 | 0774 | 0772 | 0682 | | | | | | |
| ANIMAL ID | 05232 | 05241 | 05244 | 05251 | 05255 | 07271 | 07277 | 07277 | 07277 | 07277 | 07277 | 07277 | 07277 | 07277 | 07277 | 07277 | 07277 | 09291 | 09299 | 09299 | 09299 | 09299 | 09299 | 09299 | |
| | 3 | 1 | 4 | 4 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 17
4 |
| C-cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 17 |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1.7 |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | | 13 | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 4.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | 10 | 3.4 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 11 | 3.7 |
| Fat Pad, Ovarian/parametrial | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Ovary | | | | | | | | | | | | | | | | | | | | | | | | | 46 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 46 | 2.7 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Hyperplasia, Sertoliform | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1.5 |
| Bilateral, Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Bursa, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Interstitial Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Oviduct | | | | | | | | | | | | | | | | | | | | | | | | | 46 | |
| Uterus | | | | | | | | | | | | | | | | | | | | | | | | | 46 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | 6 | 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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|---|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-----|-----|
| | 0575 | 0486 | 0611 | 0515 | 0604 | 0772 | 0770 | 0512 | 0776 | 0771 | 0446 | 0556 | 0665 | 0655 | 0772 | 0771 | 0772 | 0772 | 0668 | 0662 | | | |
| ANIMAL ID | 05232 | 05422 | 05522 | 05522 | 05722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | | | |
| Metaplasia, Squamous | 2 | | | | | | | | | | | | | | | | | | | | 6 | 1.5 | |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | |
| Endometrium, Cyst | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Endometrium, Hyperplasia | 1 4 2 2 | | | | | | | | | | | | | | | | | | | | 12 | 2.3 | |
| Endometrium, Hyperplasia, Cystic Lumen, Dilatation | 2 3 3 2 2 4 2 2 4 2 2 4 3 3 2 2 3 | | | | | | | | | | | | | | | | | | | | 26 | 2.4 | |
| Vagina | + | | | | | | | | | | | | | | | | | | | | 46 | | |
| Infiltration Cellular, Polymorphonuclear Epithelium, Degeneration | | | | | | | | | | | | | | | | | | | | | 2 | 6 | 2.8 |
| Epithelium, Hyperplasia | 3 2 2 2 3 2 | | | | | | | | | | | | | | | | | | | | 12 | 2.7 | |
| Epithelium, Mucification | 4 2 3 2 4 4 2 3 4 4 4 3 3 4 3 2 1 4 2 | | | | | | | | | | | | | | | | | | | | 40 | 3.2 | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | 46 | | |
| Hypocellularity | | | | | | | | | | | | | | | | | | | | | 3 | 6 | 3.2 |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 4 | 2 | 4.0 |
| Lymph Node | + | | | | | | | | | | | | | | | | | | | | 6 | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | 4 | 2 | 3.5 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | 3 | 5 | 3.0 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | 3 | 4 | 3.8 |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 4.0 |
| Lymph Node, Mandibular | + | | | | | | | | | | | | | | | | | | | | 6 | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 3 | 4.0 |
| Infiltration Cellular, Plasma Cell | 4 | | | | | | | | | | | | | | | | | | | | 4 | 4 | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

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|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|-----------------|
| | 0575 | 0486 | 0611 | 0515 | 0644 | 0707 | 0707 | 0512 | 0712 | 0712 | 0416 | 0522 | 0626 | 0655 | 0522 | 0711 | 0712 | 0722 | 0728 | 0628 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0522 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0522 | |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 0522 | |
| | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 0522 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 0522 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|-----|--|
| Necrosis | 2 | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | |
| Lymph Node, Mesenteric Degeneration, Cystic Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 4.0 | |
| | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | | |
| Spleen Hematopoietic Cell Proliferation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 46 | 23 | 2.6 | |
| Hyperplasia, Lymphoid Pigmentation | 2 | | | | 4 | 3 | 2 | | | 4 | 3 | 2 | 4 | 1 | | | 4 | | | | | | 2 | 2.5 | |
| | | 2 | 2 | 3 | 2 | | 2 | | 4 | | | | | 3 | 1 | 2 | | | 3 | 4 | | | 30 | 2.4 | |
| Thymus Atrophy Cyst | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 45 | 44 | 3.9 | |
| | 4 | 4 | 4 | | 4 | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 4 | 4 | | | 2 | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|
| Mammary Gland Atypical Focus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 46 | 3 | 1.7 | |
| Hyperplasia, Lobular Alveolus, Dilatation | 4 | 1 | 3 | | 4 | | | | 4 | 4 | 2 | 2 | 1 | 3 | 2 | 1 | 4 | | | 4 | 4 | | | 37 | 3.1 |
| Duct, Dilatation | | 2 | | | | | 2 | 2 | | 2 | | | 2 | | | | 3 | | | | | | | 11 | 2.2 |
| | | 2 | | | | | 2 | 2 | | 2 | | | 2 | | 1 | | 2 | | | | | | | 14 | 2.1 |
| Skin Inflammation, Chronic Active Ulcer | + | + | + | | + | | + | + | | + | | | + | | | + | | | | | | 17 | 1 | 2.0 | |
| Epithelium, Foot, Hyperplasia | | 4 | 4 | | 4 | | 4 | 4 | | 4 | | | 4 | | | 4 | | | | | | | 15 | 4.0 | |
| Foot, Bacterium | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Foot, Edema | 4 | 4 | 4 | | 3 | | 4 | 4 | | 3 | | | 4 | | | | | | | | | | 11 | 3.6 | |
| Foot, Fibrosis | 4 | 4 | 4 | | 4 | | 4 | 4 | | 4 | | | 4 | | | 4 | | | | | | | 15 | 4.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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| | 0575 | 0486 | 0611 | 0518 | 0604 | 0778 | 0772 | 0516 | 0770 | 0774 | 0456 | 0564 | 0655 | 0772 | 0774 | 0772 | 0778 | 0668 | 0682 | | | |
| ANIMAL ID | 05232 | 05444 | 05545 | 05525 | 05722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 07722 | 09900 | 09900 | 09900 | 09900 | 09900 | 09900 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|--|---|--|---|---|--|---|--|--|--|---|--|--|---|--|--|--|--|--|----|-----|
| Foot, Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Foot, Inflammation, Chronic Active | 4 | 4 | 4 | | 4 | | 4 | 4 | | 4 | | | | 4 | | | 4 | | | | | | 16 | 4.0 |
| Foot, Necrosis | 4 | 4 | 4 | | 4 | | 4 | 4 | | 4 | | | | 4 | | | | | | | | | 14 | 4.0 |
| Foot, Ulcer | 4 | 4 | 4 | | 4 | | 4 | 4 | | 4 | | | | 4 | | | | | | | | | 15 | 4.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | 4 | | | | | | | | | 1 | 4.0 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | + | | | 1 | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Compression | | | | 2 | | | | 2 | 3 | | | | | 2 | | | 4 | | | 2 | 3 | 2 | 17 | 2.8 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Ventricle, Dilatation | | | | | | | | | 1 | | | | | | | | 2 | | | | 1 | 1 | 6 | 1.3 |
| Nerve Trigeminal | | | | + | | + | | + | | | | | | | | | | | | | | | 6 | |
| Axon, Degeneration | | | | 1 | | 1 | | 2 | | | | | | | | | | | | | | | 5 | 1.2 |
| Peripheral Nerve, Sciatic | | | | + | | + | | + | | | | | | | | | | | | | | | 6 | |
| Peripheral Nerve, Tibial | | | | + | | + | | + | | | | | | | | | | | | | | | 6 | |
| Spinal Cord, Cervical | | | | + | | + | | + | | | | | | | | | | | | | | | 6 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000BPA F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | | | | | | |
|---|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---|---|---|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | | | |
| | 5 | 4 | 6 | 5 | 6 | 0 | 7 | 7 | 5 | 7 | 7 | 4 | 5 | 6 | 6 | 5 | 7 | 7 | 7 | 7 | 6 | 6 | 5 | 2 | 1 | 2 | 2 | 8 | 2 |
| | 7 | 8 | 1 | 1 | 5 | 4 | 2 | 0 | 1 | 2 | 1 | 6 | 2 | 6 | 5 | 5 | 2 | 1 | 2 | 2 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 2 |
| | 5 | 6 | 6 | 1 | 8 | 4 | 8 | 2 | 6 | 6 | 0 | 8 | 4 | 6 | 4 | 5 | 0 | 1 | 4 | 8 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Axon, Degeneration 1 1.0

Spinal Cord, Lumbar 6
 Axon, Degeneration 4 1.3

Spinal Cord, Thoracic 6
 Axon, Degeneration 1 1.0

RESPIRATORY SYSTEM

Lung 42
 Foreign Body 3
 Hemorrhage 1 4.0
 Infiltration Cellular, Histiocyte 13 2.4
 Inflammation, Granulomatous 2 1.5
 Inflammation, Chronic 1 1.0
 Inflammation, Chronic Active 1 1.0
 Mineralization 1 3.0

Nose 38
 Fibrous Osteodystrophy 2 3.0
 Olfactory Epithelium, Accumulation, Hyaline Droplet 11 2.1
 Respiratory Epithelium, Accumulation, Hyaline Droplet 3 1.7
 Respiratory Epithelium, Hyperplasia 1 2.0
 Respiratory Epithelium, Hyperplasia, Goblet Cell 3 2.3

Trachea 38

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----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| | 0673 | 0675 | 0678 | 0679 | 0681 | 0682 | 0683 | 0684 | 0685 | 0686 | 0687 | 0688 | 0689 | 0690 | 0691 | 0692 | 0693 | 0694 | 0695 | 0696 | | | 0697 | 0698 | 0699 | 0700 | 0701 | 0702 | 0703 | 0704 | 0705 | 0706 | 0707 | 0708 | 0709 | 0710 | 0711 | 0712 | 0713 | 0714 | 0715 | 0716 | 0717 | 0718 | 0719 | 0720 | 0721 | 0722 | 0723 | 0724 | 0725 | 0726 | 0727 | 0728 | 0729 | 0730 | 0731 | 0732 | 0733 | 0734 | 0735 | 0736 | 0737 | 0738 | 0739 | 0740 | 0741 | 0742 | 0743 | 0744 | 0745 | 0746 | 0747 | 0748 | 0749 | 0750 | 0751 | 0752 | 0753 | 0754 | 0755 | 0756 | 0757 | 0758 | 0759 | 0760 | 0761 | 0762 | 0763 | 0764 | 0765 | 0766 | 0767 | 0768 | 0769 | 0770 | 0771 | 0772 | 0773 | 0774 | 0775 | 0776 | 0777 | 0778 | 0779 | 0780 | 0781 | 0782 | 0783 | 0784 | 0785 | 0786 | 0787 | 0788 | 0789 | 0790 | 0791 | 0792 | 0793 | 0794 | 0795 | 0796 | 0797 | 0798 | 0799 | 0800 | 0801 | 0802 | 0803 | 0804 | 0805 | 0806 | 0807 | 0808 | 0809 | 0810 | 0811 | 0812 | 0813 | 0814 | 0815 | 0816 | 0817 | 0818 | 0819 | 0820 | 0821 | 0822 | 0823 | 0824 | 0825 | 0826 | 0827 | 0828 | 0829 | 0830 | 0831 | 0832 | 0833 | 0834 | 0835 | 0836 | 0837 | 0838 | 0839 | 0840 | 0841 | 0842 | 0843 | 0844 | 0845 | 0846 | 0847 | 0848 | 0849 | 0850 | 0851 | 0852 | 0853 | 0854 | 0855 | 0856 | 0857 | 0858 | 0859 | 0860 | 0861 | 0862 | 0863 | 0864 | 0865 | 0866 | 0867 | 0868 | 0869 | 0870 | 0871 | 0872 | 0873 | 0874 | 0875 | 0876 | 0877 | 0878 | 0879 | 0880 | 0881 | 0882 | 0883 | 0884 | 0885 | 0886 | 0887 | 0888 | 0889 | 0890 | 0891 | 0892 | 0893 | 0894 | 0895 | 0896 | 0897 | 0898 | 0899 | 0900 | 0901 | 0902 | 0903 | 0904 | 0905 | 0906 | 0907 | 0908 | 0909 | 0910 | 0911 | 0912 | 0913 | 0914 | 0915 | 0916 | 0917 | 0918 | 0919 | 0920 | 0921 | 0922 | 0923 | 0924 | 0925 | 0926 | 0927 | 0928 | 0929 | 0930 | 0931 | 0932 | 0933 | 0934 | 0935 | 0936 | 0937 | 0938 | 0939 | 0940 | 0941 | 0942 | 0943 | 0944 | 0945 | 0946 | 0947 | 0948 | 0949 | 0950 | 0951 | 0952 | 0953 | 0954 | 0955 | 0956 | 0957 | 0958 | 0959 | 0960 | 0961 | 0962 | 0963 | 0964 | 0965 | 0966 | 0967 | 0968 | 0969 | 0970 | 0971 | 0972 | 0973 | 0974 | 0975 | 0976 | 0977 | 0978 | 0979 | 0980 | 0981 | 0982 | 0983 | 0984 | 0985 | 0986 | 0987 | 0988 | 0989 | 0990 | 0991 | 0992 | 0993 | 0994 | 0995 | 0996 | 0997 | 0998 | 0999 | 1000 | 1001 | 1002 | 1003 | 1004 | 1005 | 1006 | 1007 | 1008 | 1009 | 1010 | 1011 | 1012 | 1013 | 1014 | 1015 | 1016 | 1017 | 1018 | 1019 | 1020 | 1021 | 1022 | 1023 | 1024 | 1025 | 1026 | 1027 | 1028 | 1029 | 1030 | 1031 | 1032 | 1033 | 1034 | 1035 | 1036 | 1037 | 1038 | 1039 | 1040 | 1041 | 1042 | 1043 | 1044 | 1045 | 1046 | 1047 | 1048 | 1049 | 1050 | 1051 | 1052 | 1053 | 1054 | 1055 | 1056 | 1057 | 1058 | 1059 | 1060 | 1061 | 1062 | 1063 | 1064 | 1065 | 1066 | 1067 | 1068 | 1069 | 1070 | 1071 | 1072 | 1073 | 1074 | 1075 | 1076 | 1077 | 1078 | 1079 | 1080 | 1081 | 1082 | 1083 | 1084 | 1085 | 1086 | 1087 | 1088 | 1089 | 1090 | 1091 | 1092 | 1093 | 1094 | 1095 | 1096 | 1097 | 1098 | 1099 | 1100 | 1101 | 1102 | 1103 | 1104 | 1105 | 1106 | 1107 | 1108 | 1109 | 1110 | 1111 | 1112 | 1113 | 1114 | 1115 | 1116 | 1117 | 1118 | 1119 | 1120 | 1121 | 1122 | 1123 | 1124 | 1125 | 1126 | 1127 | 1128 | 1129 | 1130 | 1131 | 1132 | 1133 | 1134 | 1135 | 1136 | 1137 | 1138 | 1139 | 1140 | 1141 | 1142 | 1143 | 1144 | 1145 | 1146 | 1147 | 1148 | 1149 | 1150 | 1151 | 1152 | 1153 | 1154 | 1155 | 1156 | 1157 | 1158 | 1159 | 1160 | 1161 | 1162 | 1163 | 1164 | 1165 | 1166 | 1167 | 1168 | 1169 | 1170 | 1171 | 1172 | 1173 | 1174 | 1175 | 1176 | 1177 | 1178 | 1179 | 1180 | 1181 | 1182 | 1183 | 1184 | 1185 | 1186 | 1187 | 1188 | 1189 | 1190 | 1191 | 1192 | 1193 | 1194 | 1195 | 1196 | 1197 | 1198 | 1199 | 1200 | 1201 | 1202 | 1203 | 1204 | 1205 | 1206 | 1207 | 1208 | 1209 | 1210 | 1211 | 1212 | 1213 | 1214 | 1215 | 1216 | 1217 | 1218 | 1219 | 1220 | 1221 | 1222 | 1223 | 1224 | 1225 | 1226 | 1227 | 1228 | 1229 | 1230 | 1231 | 1232 | 1233 | 1234 | 1235 | 1236 | 1237 | 1238 | 1239 | 1240 | 1241 | 1242 | 1243 | 1244 | 1245 | 1246 | 1247 | 1248 | 1249 | 1250 | 1251 | 1252 | 1253 | 1254 | 1255 | 1256 | 1257 | 1258 | 1259 | 1260 | 1261 | 1262 | 1263 | 1264 | 1265 | 1266 | 1267 | 1268 | 1269 | 1270 | 1271 | 1272 | 1273 | 1274 | 1275 | 1276 | 1277 | 1278 | 1279 | 1280 | 1281 | 1282 | 1283 | 1284 | 1285 | 1286 | 1287 | 1288 | 1289 | 1290 | 1291 | 1292 | 1293 | 1294 | 1295 | 1296 | 1297 | 1298 | 1299 | 1300 | 1301 | 1302 | 1303 | 1304 | 1305 | 1306 | 1307 | 1308 | 1309 | 1310 | 1311 | 1312 | 1313 | 1314 | 1315 | 1316 | 1317 | 1318 | 1319 | 1320 | 1321 | 1322 | 1323 | 1324 | 1325 | 1326 | 1327 | 1328 | 1329 | 1330 | 1331 | 1332 | 1333 | 1334 | 1335 | 1336 | 1337 | 1338 | 1339 | 1340 | 1341 | 1342 | 1343 | 1344 | 1345 | 1346 | 1347 | 1348 | 1349 | 1350 | 1351 | 1352 | 1353 | 1354 | 1355 | 1356 | 1357 | 1358 | 1359 | 1360 | 1361 | 1362 | 1363 | 1364 | 1365 | 1366 | 1367 | 1368 | 1369 | 1370 | 1371 | 1372 | 1373 | 1374 | 1375 | 1376 | 1377 | 1378 | 1379 | 1380 | 1381 | 1382 | 1383 | 1384 | 1385 | 1386 | 1387 | 1388 | 1389 | 1390 | 1391 | 1392 | 1393 | 1394 | 1395 | 1396 | 1397 | 1398 | 1399 | 1400 | 1401 | 1402 | 1403 | 1404 | 1405 | 1406 | 1407 | 1408 | 1409 | 1410 | 1411 | 1412 | 1413 | 1414 | 1415 | 1416 | 1417 | 1418 | 1419 | 1420 | 1421 | 1422 | 1423 | 1424 | 1425 | 1426 | 1427 | 1428 | 1429 | 1430 | 1431 | 1432 | 1433 | 1434 | 1435 | 1436 | 1437 | 1438 | 1439 | 1440 | 1441 | 1442 | 1443 | 1444 | 1445 | 1446 | 1447 | 1448 | 1449 | 1450 | 1451 | 1452 | 1453 | 1454 | 1455 | 1456 | 1457 | 1458 | 1459 | 1460 | 1461 | 1462 | 1463 | 1464 | 1465 | 1466 | 1467 | 1468 | 1469 | 1470 | 1471 | 1472 | 1473 | 1474 | 1475 | 1476 | 1477 | 1478 | 1479 | 1480 | 1481 | 1482 | 1483 | 1484 | 1485 | 1486 | 1487 | 1488 | 1489 | 1490 | 1491 | 1492 | 1493 | 1494 | 1495 | 1496 | 1497 | 1498 | 1499 | 1500 | 1501 | 1502 | 1503 | 1504 | 1505 | 1506 | 1507 | 1508 | 1509 | 1510 | 1511 | 1512 | 1513 | 1514 | 1515 | 1516 | 1517 | 1518 | 1519 | 1520 | 1521 | 1522 | 1523 | 1524 | 1525 | 1526 | 1527 | 1528 | 1529 | 1530 | 1531 | 1532 | 1533 | 1534 | 1535 | 1536 | 1537 | 1538 | 1539 | 1540 | 1541 | 1542 | 1543 | 1544 | 1545 | 1546 | 1547 | 1548 | 1549 | 1550 | 1551 | 1552 | 1553 | 1554 | 1555 | 1556 | 1557 | 1558 | 1559 | 1560 | 1561 | 1562 | 1563 | 1564 | 1565 | 1566 | 1567 | 1568 | 1569 | 1570 | 1571 | 1572 | 1573 | 1574 | 1575 | 1576 | 1577 | 1578 | 1579 | 1580 | 1581 | 1582 | 1583 | 1584 | 1585 | 1586 | 1587 | 1588 | 1589 | 1590 | 1591 | 1592 | 1593 | 1594 | 1595 | 1596 | 1597 | 1598 | 1599 | 1600 | 1601 | 1602 | 1603 | 1604 | 1605 | 1606 | 1607 | 1608 | 1609 | 1610 | 1611 | 1612 | 1613 | 1614 | 1615 | 1616 | 1617 | 1618 | 1619 | 1620 | 1621 | 1622 | 1623 | 1624 | 1625 | 1626 | 1627 | 1628 | 1629 | 1630 | 1631 | 1632 | 1633 | 1634 | 1635 | 1636 | 1637 | 1638 | 1639 | 1640 | 1641 | 1642 | 1643 | 1644 | 1645 | 1646 | 1647 | 1648 | 1649 | 1650 | 1651 | 1652 | 1653 | 1654 | 1655 | 1656 | 1657 | 1658 | 1659 | 1660 | 1661 | 1662 | 1663 | 1664 | 1665 | 1666 | 1667 | 1668 | 1669 | 1670 | 1671 | 1672 | 1673 | 1674 | 1675 | 1676 | 1677 | 1678 | 1679 | 1680 | 1681 | 1682 | 1683 | 1684 | 1685 | 1686 | 1687 | 1688 | 1689 | 1690 | 1691 | 1692 | 1693 | 1694 | 1695 | 1696 | 1697 | 1698 | 1699 | 1700 | 1701 | 1702 | 1703 | 1704 | 1705 | 1706 | 1707 | 1708 | 1709 | 1710 | 1711 | 1712 | 1713 | 1714 | 1715 | 1716 | 1717 | 1718 | 1719 | 1720 | 1721 | 1722 | 1723 | 1724 | 1725 | 1726 | 1727 | 1728 | 1729 | 1730 | 1731 | 1732 | 1733 | 1734 | 1735 | 1736 | 1737 | 1738 | 1739 | 1740 | 1741 | 1742 | 1743 | 1744 | 1745 | 1746 | 1747 | 1748 | 1749 | 1750 | 1751 | 1752 | 1753 | 1754 | 1755 | 1756 | 1757 | 1758 | 1759 | 1760 | 1761 | 1762 | 1763 | 1764 | 1765 | 1766 | 1767 | 1768 | 1769 | 1770 | 1771 | 1772 | 1773 | 1774 | 1775 | 1776 | 1777 | 1778 | 1779 | 1780 | 1781 | 1782 | 1783 | 1784 | 1785 | 1786 | 1787 | 1788 | 1789 | 1790 | 1791 | 1792 | 1793 | 1794 | 1795 | 1796 | 1797 | 1798 | 1799 | 1800 | 1801 | 1802 | 1803 | 1804 | 1805 | 1806 | 1807 | 1808 | 1809 | 1810 | 1811 | 1812 | 1813 | 1814 | 1815 | 1816 | 1817 | 1818 | 1819 | 1820 | 1821 | 1822 | 1823 | 1824 | 1825 | 1826 | 1827 | 1828 | 1829 | 1830 | 1831 | 1832 | 1833 | 1834 | 1835 | 1836 | 1837 | 1838 | 1839 | 1840 | 1841 | 1842 | 1843 | 1844 | 1845 | 1846 | 1847 | 1848 | 1849 | 1850 | 1851 | 1852 | 1853 | 1854 | 1855 | 1856 | 1857 | 1858 | 1859 | 1860 | 1861 | 1862 | 1863 | 1864 | 1865 | 1866 | 1867 | 1868 | 1869 | 1870 | 1871 | 1872 | 1873 | 1874 | 1875 | 1876 | 1877 | 1878 | 1879 | 1880 | 1881 | 1882 | 1883 | 1884 | 1885 | 1886 | 1887 | 1888 | 1889 | 1890 | 1891 | 1892 | 1893 | 1894 | 1895 | 1896 | 1897 | 1898 | 1899 | 1900 | 1901 | 1902 | 1903 | 1904 | 1905 | 1906 | 1907 | 1908 | 1909 | 1910 | 1911 | 1912 | 1913 | 1914 | 1915 | 1916 | 1917 | 1918 | 1919 | 1920 | 1921 | 1922 | 1923 | 1924 | 1925 | 1926 | 1927 | 1928 | 1929 | 1930 | 1931 | 1932 | 1933 | 1934 | 1935 | 1936 | 1937 | 1938 | 1939 | 1940 | 1941 | 1942 | 1943 | 1944 | 1945 | 1946 | 1947 | 1948 | 1949 | 1950 | 1951 | 1952 | 1953 | 1954 | 1955 | 1956 | 1957 | 1958 | 1959 | 1960 | 1961 | 1962 | 1963 | 1964 | 1965 | 1966 | 1967 | 1968 | 1969 | 1970 | 1971 | 1972 | 1973 | 1974 | 1975 | 1976 | 1977 | 1978 |

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|
| | 0673 | 0675 | 0678 | 0591 | 0598 | 0479 | 0772 | 0779 | 0772 | 0469 | 0664 | 0772 | 0488 | 0774 | 0461 | 0551 | 0448 | 0554 | 0458 | 0556 | | | 0775 | 0592 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 | 9 | 9 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 |
| | 3 | 3 | 4 | 4 | 5 | 5 | 9 | 9 | 0 | 1 | 1 | 5 | 5 | 6 | 6 | 7 | 7 | 7 | 7 | 8 | 8 | 1 | 1 | 2 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hyperplasia | 1 | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hyperplasia | 1 | | | | | | | 2 | | | 2 | | | | | | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | 4 | | | | | | 4 | | | | 4 | 4 | | | | | | | | | | | 4 | |
| Pars Distalis, Cyst | | X | | | | | | | | | | | | | | | | | X | X | | | | |
| Pars Distalis, Hyperplasia | | 4 | | 4 | | 4 | | | | 4 | | 4 | 4 | 3 | | 3 | 3 | 2 | 2 | | 4 | 2 | 3 | 4 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Ultimobranchial Cyst | X | | | | | | X | | | | | | | X | | | X | | | | | X | | |
| C-cell, Hyperplasia | | | | 2 | | | 1 | | | | | | | | | | | 2 | | 1 | 2 | 2 | 2 | |
| Follicular Cell, Hyperplasia | | | 3 | | 3 | | | | | | 2 | | | | | | | 3 | | | | | | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Tissue NOS | | + | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | 4 | 2 | 2 | 2 | 4 | 2 | 2 | | 3 | 4 | 2 | 2 | 3 | 3 | 3 | 2 | 2 | 4 | 4 | 3 | 2 | 2 | 4 | 3 |
| Cyst | | | | | | | | | X | | | | X | | | | | X | | | | X | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|------|
| | 0673 | 0675 | 0678 | 0679 | 0671 | 0674 | 0677 | 0672 | 0672 | 0672 | 0679 | 0675 | 0671 | 0675 | 0673 | 0679 | 0676 | 0674 | 0675 | 0674 | 0675 | 0675 | 0677 | 0675 | | 0676 |
| ANIMAL ID | 0100 | 0101 | 0101 | 0101 | 0101 | 0103 | 0103 | 0103 | 0103 | 0103 | 0103 | 0103 | 0105 | 0105 | 0105 | 0105 | 0105 | 0105 | 0107 | 0107 | 0107 | 0107 | 0107 | 0109 | 0109 | 0109 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|---|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Hyperplasia, Sertoliform | 3 | | | 1 | | | 2 | | | | | | | | | | | | | | | | | |
| Bursa, Cyst | X | | | | | | | | | | | | | | | | | | | | | | | |
| Oviduct | + | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | + | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Stromal | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Squamous | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia | 1 2 1 2 2 2 4 2 2 2 4 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | 3 2 2 3 1 2 4 2 4 3 2 3 2 4 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Lumen, Dilatation | 4 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Vagina | + | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | 3 2 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Degeneration | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | 3 4 4 2 3 4 2 4 2 4 4 4 4 3 4 2 4 4 4 4 3 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Mucification | 3 4 3 4 2 3 4 2 4 2 4 4 4 3 2 4 4 4 4 3 4 | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | | | |
| Hypocellularity | 3 | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | + | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | 3 3 2 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Hyperplasia, Lymphoid | 3 4 4 3 | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | 0673 | 0659 | 0686 | 0558 | 0551 | 0479 | 0772 | 0772 | 0775 | 0461 | 0664 | 0772 | 0488 | 0772 | 0461 | 0551 | 0488 | 0551 | 0551 | 0572 | 0551 | 0667 | females
(cont...) |
| | ANIMAL ID | 0103 | 0104 | 0105 | 0106 | 0107 | 0108 | 0109 | 0110 | 0111 | 0112 | 0113 | 0114 | 0115 | 0116 | 0117 | 0118 | 0119 | 0120 | 0121 | 0122 | 0123 | 0124 | |
| | | 0011 | 0012 | 0013 | 0014 | 0015 | 0016 | 0017 | 0018 | 0019 | 0020 | 0021 | 0022 | 0023 | 0024 | 0025 | 0026 | 0027 | 0028 | 0029 | 0030 | 0031 | 0032 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lumbar, Infiltration Cellular, Plasma Cell | 4 | | | | | | | 4 | 4 | | | | | | 4 | | | | | | | | | | | |
| Mediastinal, Degeneration, Cystic | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hemorrhage | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mediastinal, Hyperplasia, Lymphoid | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | 4 | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Hematopoietic Cell Proliferation | | 2 | 2 | | | 3 | 1 | 1 | 2 | | | 1 | 4 | 2 | 1 | | 1 | | 3 | | 3 | 3 | | 2 | | |
| Pigmentation | 4 | | | 1 | 3 | 4 | | | | 1 | 3 | 3 | 1 | | 2 | 3 | 3 | | 3 | | 4 | 3 | 1 | 4 | 4 | 2 |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Atrophy | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | |
| Atypical Focus | 1 | | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Hyperplasia, Lobular | 2 | 4 | 4 | 4 | 2 | 4 | 4 | 2 | 4 | 2 | 4 | 4 | 2 | 3 | 3 | | 4 | | 2 | 1 | 3 | 3 | 4 | 2 | 4 | |
| Metaplasia, Osseous | | | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Alveolus, Dilatation | 2 | | | | 2 | | | | | 2 | | | | | | | | | 2 | | | | | | | 2 |
| Duct, Dilatation | 3 | 3 | | | 2 | | | | | 2 | | | | | | | | | 2 | 3 | | | | | | |
| Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 3 | |
| Skin | | + | | | | + | | + | | | | | + | + | | | | + | + | | | | | + | | |
| Epithelium, Foot, Hyperplasia | | 4 | | | | | | 4 | | | | | 4 | | | | | 4 | 4 | | | | | 4 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| DAY ON TEST | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|--|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | | 6 | 6 | 6 | 5 | 5 | 4 | 7 | 7 | 7 | 4 | 6 | 6 | 7 | 4 | 7 | 4 | 5 | 4 | 5 | 4 | 5 | 5 | 7 |
| | F1 0.05 EE2 F | 7 | 5 | 8 | 9 | 1 | 9 | 2 | 2 | 2 | 9 | 1 | 4 | 2 | 8 | 2 | 6 | 1 | 4 | 8 | 8 | 0 | 5 | 2 |
| | | 3 | 9 | 6 | 3 | 8 | 8 | 9 | 9 | 5 | 1 | 5 | 3 | 9 | 6 | 5 | 1 | 2 | 4 | 0 | 5 | 6 | 1 | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 9 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 2 | 2 | 2 |
| | | 3 | 3 | 4 | 4 | 5 | 5 | 9 | 9 | 0 | 0 | 1 | 1 | 5 | 5 | 6 | 7 | 7 | 7 | 8 | 8 | 1 | 1 | 1 |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

females
(cont...)

Foot, Bacterium

X

Foot, Edema

4 4 4 4

Foot, Fibrosis

4 4 4 4

Foot, Inflammation, Chronic Active

4 4 4 4

Foot, Necrosis

4 4 4 4

Foot, Ulcer

4 4 4 4

MUSCULOSKELETAL SYSTEM

Bone, Femur

+ +

NERVOUS SYSTEM

Brain, Brain Stem

+ +

Compression

2 1 3 4

Hemorrhage

3 2 1

Brain, Cerebellum

+ +

Brain, Cerebrum

+ +

Ventricle, Dilatation

1 1

Nerve Trigeminal

+ + + +

Axon, Degeneration

2 + + +

Peripheral Nerve, Sciatic

+ + + +

Peripheral Nerve, Tibial

+ + + +

Spinal Cord, Cervical

+ + + +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

M .. Missing tissue

X .. Lesion present

A .. Autolysis precludes evaluation

I .. Insufficient tissue

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | | |
|---|-------------|---|--|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | 0 | | |
| | | 7 | | |
| | | 2 | | |
| | | 9 | | |
| | ANIMAL ID | 0 | | |
| | | 9 | | |
| | | 2 | | |
| | | 2 | | |
| | | 2 | | |
| | | | | * TOTALS |

ALIMENTARY SYSTEM

| | | | | | | |
|---|--|---|--|--|--|--------|
| Esophagus | | | | | | 19 |
| Intestine Large, Colon | | | | | | 19 |
| Intestine Small, Ileum | | | | | | 19 |
| Liver | | + | | | | 26 |
| Angiectasis | | | | | | 1 2.0 |
| Basophilic Focus | | X | | | | 12 |
| Clear Cell Focus | | | | | | 2 |
| Degeneration, Cystic | | | | | | 4 1.0 |
| Fatty Change | | | | | | 5 2.2 |
| Hematopoietic Cell Proliferation | | | | | | 2 1.0 |
| Infiltration Cellular, Mononuclear Cell | | 1 | | | | 17 1.1 |
| Mitotic Alteration | | | | | | 1 2.0 |
| Mixed Cell Focus | | | | | | 1 |
| Tension Lipidosis | | | | | | 2 3.5 |
| Vacuolization Cytoplasmic | | 1 | | | | 11 1.3 |
| Bile Duct, Hyperplasia | | | | | | 8 1.5 |
| Biliary Tract, Cyst | | X | | | | 2 |
| Biliary Tract, Fibrosis | | | | | | 3 1.0 |
| Hepatocyte, Necrosis | | | | | | 1 2.0 |
| Oval Cell, Hyperplasia | | | | | | 1 1.0 |
| Mesentery | | | | | | 2 |
| Fat, Necrosis | | | | | | 1 4.0 |
| Pancreas | | + | | | | 26 |

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 + .. Tissue examined microscopically M .. Missing tissue
 X .. Lesion present A .. Autolysis precludes evaluation
 I .. Insufficient tissue BLANK .. Not examined microscopically

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Experiment Number: 10034 - 04

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Bisphenol A

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2 Year Animals

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| | | | |
|--|-------------|---|-----------------|
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RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | 0 | |
| | | 7 | |
| | | 2 | |
| | | 9 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 2 | |
| | | 2 | |
| | | 2 | |
| | | | * TOTALS |

| | | | |
|-----------------------------------|--|----|-----|
| Basophilic Focus | | 3 | |
| Infiltration Cellular, Lymphocyte | | 18 | 1.3 |
| Lipomatosis | | 1 | 3.0 |
| Pigmentation | | 4 | 1.0 |
| Acinus, Degeneration | | 18 | 2.1 |

Stomach, Forestomach 19

| | | | |
|------------------------------|--|----|-----|
| Stomach, Glandular | | 19 | |
| Edema | | 1 | 3.0 |
| Inflammation, Chronic Active | | 1 | 3.0 |

CARDIOVASCULAR SYSTEM

| | | | |
|----------------|---|----|-----|
| Blood Vessel | + | 26 | |
| Heart | + | 26 | |
| Cardiomyopathy | 1 | 19 | 1.3 |

ENDOCRINE SYSTEM

| | | | |
|---------------------------|---|----|-----|
| Adrenal Cortex | + | 26 | |
| Angiectasis | | 3 | 2.0 |
| Degeneration, Cystic | 3 | 13 | 2.4 |
| Hyperplasia | | 4 | 1.8 |
| Hypertrophy | | 1 | 4.0 |
| Necrosis | | 1 | 4.0 |
| Vacuolization Cytoplasmic | | 3 | 3.0 |
| Adrenal Medulla | + | 26 | |

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Experiment Number: 10034 - 04

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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Lab: NCTR

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RATS FEMALE
F1 0.05 EE2 F | | DAY ON TEST | | |
|---|---|-------------|----|-----------------|
| | | ANIMAL ID | | |
| | | 0 | | |
| | | 7 | | |
| | | 2 | | |
| | | 9 | | |
| | | 0 | | |
| | | 9 | | |
| | | 2 | | |
| | | 2 | | |
| | | 2 | | |
| | | | | * TOTALS |
| Hyperplasia | | | 2 | 1.0 |
| Islets, Pancreatic | + | | 26 | |
| Parathyroid Gland | + | | 26 | |
| Hyperplasia | | | 3 | 1.7 |
| Pituitary Gland | + | | 26 | |
| Angiectasis | | | 5 | 4.0 |
| Pars Distalis, Cyst | | | 3 | |
| Pars Distalis, Hyperplasia | 3 | | 16 | 3.3 |
| Thyroid Gland | + | | 26 | |
| Ultimobranchial Cyst | | | 5 | |
| C-cell, Hyperplasia | | | 7 | 1.7 |
| Follicular Cell, Hyperplasia | | | 4 | 2.8 |
| GENERAL BODY SYSTEM | | | | |
| Tissue NOS | | | 2 | |
| GENITAL SYSTEM | | | | |
| Clitoral Gland | + | | 2 | |
| Hyperkeratosis | | | 1 | 4.0 |
| Inflammation, Suppurative | 4 | | 1 | 4.0 |
| Duct, Dilatation | 4 | | 2 | 4.0 |
| Ovary | + | | 26 | |
| Atrophy | 2 | | 25 | 2.8 |
| Cyst | X | | 5 | |

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Bisphenol A

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2 Year Animals

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RATS FEMALE
F1 0.05 EE2 F | | DAY ON TEST | | |
|---|---|-------------|--|-----------------|
| | | ANIMAL ID | | |
| | | 0 | | |
| | | 7 | | |
| | | 2 | | |
| | | 9 | | |
| | | 0 | | |
| | | 9 | | |
| | | 2 | | |
| | | 2 | | |
| | | 2 | | |
| | | | | * TOTALS |
| Hyperplasia, Sertoliform | | | | 3 2.0 |
| Bursa, Cyst | | | | 1 |
| Oviduct | + | | | 26 |
| Uterus | + | | | 26 |
| Atrophy | 3 | | | 1 3.0 |
| Hemorrhage | | | | 1 2.0 |
| Hyperplasia, Stromal | | | | 1 3.0 |
| Infiltration Cellular, Polymorphonuclear | | | | 1 2.0 |
| Metaplasia, Squamous | | | | 2 2.0 |
| Endometrial Glands, Hyperplasia | | | | 2 2.0 |
| Endometrium, Hyperplasia | | | | 10 1.9 |
| Endometrium, Hyperplasia, Cystic | | | | 14 2.5 |
| Lumen, Dilatation | | | | 2 4.0 |
| Vagina | + | | | 26 |
| Infiltration Cellular, Polymorphonuclear | | | | 3 2.3 |
| Epithelium, Degeneration | | | | 1 4.0 |
| Epithelium, Hyperplasia | | | | 5 3.2 |
| Epithelium, Mucification | 3 | | | 21 3.4 |
| HEMATOPOIETIC SYSTEM | | | | |
| Bone Marrow | + | | | 26 |
| Hypocellularity | | | | 1 3.0 |
| Lymph Node | | | | 4 |
| Lumbar, Degeneration, Cystic | | | | 4 3.0 |
| Lumbar, Hyperplasia, Lymphoid | | | | 4 3.5 |

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 CAS Number: 80-05-7
 2 Year Animals

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RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | | |
|---|-------------|---|-----------------|
| | | 0 | |
| | 7 | | |
| | 2 | | |
| | 9 | | |
| | ANIMAL ID | | |
| | 0 | | |
| | 9 | | |
| | 2 | | |
| | 2 | | |
| | 2 | | |
| | | | * TOTALS |

| | | |
|--|---|-----|
| Lumbar, Infiltration Cellular, Plasma Cell | 4 | 4.0 |
| Mediastinal, Degeneration, Cystic | 1 | 4.0 |
| Mediastinal, Hemorrhage | 1 | 4.0 |
| Mediastinal, Hyperplasia, Lymphoid | 1 | 3.0 |
| Renal, Infiltration Cellular, Plasma Cell | 1 | 4.0 |

| | | |
|------------------------|---|-------|
| Lymph Node, Mesenteric | 1 | |
| Degeneration, Cystic | | 1 3.0 |
| Hemorrhage | | 1 4.0 |
| Hyperplasia, Lymphoid | | 1 4.0 |

| | | | |
|----------------------------------|---|----|--------|
| Spleen | + | 26 | |
| Hematopoietic Cell Proliferation | | | 15 2.1 |
| Pigmentation | 2 | | 19 2.7 |

| | | | |
|---------|---|----|--------|
| Thymus | + | 26 | |
| Atrophy | 4 | | 26 3.8 |

INTEGUMENTARY SYSTEM

| | | | |
|----------------------|---|----|--------|
| Mammary Gland | + | 26 | |
| Atypical Focus | | | 2 1.5 |
| Hyperplasia, Lobular | 2 | | 24 3.0 |
| Metaplasia, Osseous | | | 1 2.0 |
| Alveolus, Dilatation | | | 5 2.0 |
| Duct, Dilatation | | | 6 2.5 |
| Duct, Hyperplasia | | | 1 3.0 |

| | | | |
|-------------------------------|---|---|-------|
| Skin | + | 9 | |
| Epithelium, Foot, Hyperplasia | 4 | | 7 4.0 |

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | ANIMAL ID | | |
|---|------------------|-----------|-----------------------|--|
| | 0
7
2
9 | | 0
9
2
2
2 | |
| | | | * TOTALS | |

| | | | | |
|------------------------------------|---|--|---|-----|
| Foot, Bacterium | | | 1 | |
| Foot, Edema | 4 | | 7 | 4.0 |
| Foot, Fibrosis | 4 | | 8 | 3.8 |
| Foot, Inflammation, Chronic Active | 4 | | 8 | 3.9 |
| Foot, Necrosis | 4 | | 7 | 4.0 |
| Foot, Ulcer | 4 | | 8 | 3.9 |

MUSCULOSKELETAL SYSTEM

| | | | | |
|-------------|---|--|----|--|
| Bone, Femur | + | | 26 | |
|-------------|---|--|----|--|

NERVOUS SYSTEM

| | | | | |
|---------------------------|---|--|----|-------|
| Brain, Brain Stem | + | | 26 | |
| Compression | | | | 6 2.3 |
| Hemorrhage | | | | 1 2.0 |
| Brain, Cerebellum | + | | 26 | |
| Brain, Cerebrum | + | | 26 | |
| Ventricle, Dilatation | | | | 2 1.0 |
| Nerve Trigeminal | + | | 5 | |
| Axon, Degeneration | 1 | | | 3 1.7 |
| Peripheral Nerve, Sciatic | + | | 5 | |
| Peripheral Nerve, Tibial | + | | 5 | |
| Spinal Cord, Cervical | + | | 5 | |

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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| | | | | |
|--|-------------|---|--|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | 0 | | |
| | | 7 | | |
| | | 2 | | |
| | | 9 | | |
| | ANIMAL ID | 0 | | |
| | | 9 | | |
| | | 2 | | |
| | | 2 | | |
| | | 2 | | |
| | | | | * TOTALS |

| | | | | |
|-----------------------|---|---|---|-----|
| Spinal Cord, Lumbar | + | 5 | | |
| Axon, Degeneration | 1 | | 4 | 1.3 |
| Spinal Cord, Thoracic | + | 5 | | |

RESPIRATORY SYSTEM

| | | | | |
|---|--|----|---|-----|
| Lung | | 21 | | |
| Hemorrhage | | | 1 | 4.0 |
| Infiltration Cellular, Histiocyte | | | 4 | 2.3 |
| Inflammation, Granulomatous | | | 1 | 3.0 |
| Metaplasia, Osseous | | | 1 | 1.0 |
| Alveolar Epithelium, Hyperplasia | | | 1 | 2.0 |
| Nose | | 19 | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | 3 | 1.7 |
| Trachea | | 19 | | |

SPECIAL SENSES SYSTEM

| | | | | |
|----------------|--|---|---|-----|
| Zymbal's Gland | | 1 | | |
| Abscess | | | 1 | 4.0 |

URINARY SYSTEM

| | | | | |
|---------------|---|----|---|-----|
| Kidney | + | 26 | | |
| Angiectasis | | | 1 | 3.0 |
| Casts Protein | 1 | | 3 | 1.0 |

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CAS Number: 80-05-7

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.05 EE2 F | DAY ON TEST | | |
|---|-----------------------|----------|--------|
| | 0
7
2
9 | | |
| | ANIMAL ID | | |
| | 0
9
2
2
2 | | |
| | | * TOTALS | |
| Cyst | | | 1 |
| Mineralization | 2 | | 10 1.7 |
| Nephropathy | | | 14 1.4 |
| Cortex, Cyst | | | 7 |
| Pelvis, Dilatation | | | 1 3.0 |
| Renal Tubule, Cyst | | | 5 |
| Renal Tubule, Dilatation | | | 1 2.0 |
| Transitional Epithelium, Hyperplasia | 2 | | 5 1.4 |
| Urinary Bladder | | | 1 |
| Hemorrhage | | | 1 3.0 |

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|------|
| | 0712 | 0632 | 0530 | 0550 | 0489 | 0583 | 0556 | 0617 | 0742 | 0545 | 0555 | 0666 | 0792 | 0533 | 0633 | 0598 | 0728 | 0575 | 0773 | 0448 | | | 0577 | 0554 | 0722 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 2 | 2 | 0 | 0 | 9 | 8 | 3 | 6 | 7 | 6 | 3 | 8 | 8 | 0 | 8 | 8 | 8 | 3 | 7 | 0 | 7 | 2 | 1 | 8 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 |
| | 5 | 5 | 6 | 6 | 7 | 7 | 1 | 1 | 2 | 2 | 3 | 7 | 8 | 8 | 9 | 9 | 9 | 9 | 5 | 5 | 6 | 6 | 6 | 6 | 6 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Large, Colon | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Small, Duodenum
Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Ileum | + | + | A | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | A | + | + | + | A | |
| Intestine Small, Jejunum
Dilatation
Fibrosis
Inflammation, Chronic Active
Metaplasia, Osseous
Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Basophilic Focus | | X | X | | X | X | X | X | X | | X | | | | X | | | X | X | | X | X | | | |
| Clear Cell Focus | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Deformity | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | 1 | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Fatty Change | 1 | | | | | | | | | | 2 | | | | | | | | | | 2 | | | | |
| Infiltration Cellular, Mononuclear Cell | | | 1 | | | 1 | | | 2 | | | 1 | | 1 | | | 1 | 1 | 1 | | | 2 | | | |
| Mineralization | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | X | | | | | | | | |
| Tension Lipidosis | 4 | | | 3 | | | 3 | | 4 | | | | | | | | 2 | | | | | | 3 | | |
| Vacuolization Cytoplasmic | 2 | | | | | | | 1 | | | | | | | | 3 | 1 | 1 | | 1 | | | | 1 | |
| Bile Duct, Hyperplasia | | | 2 | | | | | | | | | | | | | | | | | | | | | | |

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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0712 | 0632 | 0530 | 0550 | 0489 | 0583 | 0556 | 0671 | 0742 | 0545 | 0555 | 0663 | 0792 | 0533 | 0633 | 0598 | 0728 | 0573 | 0770 | 0447 | 0552 | 0554 | 0727 | 0668 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 011151 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 011151 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Capsule, Fibrosis | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | + | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Inflammation, Granulomatous | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | 3 2 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 3 | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | 1 2 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Acinar Cell, Hyperplasia | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Acinus, Degeneration | 1 2 4 1 2 2 3 1 1 2 1 1 2 1 2 2 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | + | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | + A | | | | | | | | | | | | | | | | | | | | | | | |
| Tongue | + | | | | | | | | | | | | | | | | | | | | | | | |
| Ulcer | 3 | | | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Blood Vessel | + | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiomyopathy | 1 1 1 2 2 1 2 3 2 2 1 1 2 2 2 1 1 1 1 1 1 1 2 1 | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Adrenal Cortex | + | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | 2 3 4 | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

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2 Year Animals

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|
| | 0712 | 0632 | 0530 | 0550 | 0489 | 0583 | 0556 | 0671 | 0742 | 0555 | 0555 | 0663 | 0593 | 0728 | 0578 | 0773 | 0774 | 0487 | 0552 | 0557 | | | 0721 | 0767 |
| Degeneration, Cystic Fibrosis | 4 | 4 | | 4 | 1 | 1 | | 4 | 4 | 2 | 2 | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 4 | 2 | 4 | 1 |
| Hemorrhage | | | | | | | | | | | | | 4 | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Hypertrophy | | | | | | | | | | 4 | | | | | | | | | | | | | | 2 |
| Metaplasia, Osseous | 3 | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | 2 | | | | | | 3 | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | 1 | | | | | 1 | | | | 1 | | | 2 | | | | 2 | | | 1 | | 2 | 2 | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | 1 | | | | 2 | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | 4 | 4 | | | 4 | 4 | 4 | 4 | | | | 4 | | | 4 | | | 4 | | 4 | 4 | 4 | 4 | 4 |
| Hemorrhage | | | 4 | | | | | | | | | | 4 | | | | | | | | | | 4 | |
| Pars Distalis, Cyst | | | | | | | | | | X | | | | | | | | | X | | | | | |
| Pars Distalis, Hyperplasia | | | | | 4 | | | | | 4 | | | | | 3 | 3 | 4 | 2 | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + |
| Ultimobranchial Cyst | X | X | | | | | | | | X | | | X | | | | | X | | | | | | X |
| C-cell, Hyperplasia | | | | 1 | 1 | 1 | | 4 | 2 | | 2 | | | 1 | | | | | | | 1 | 1 | | |

GENERAL BODY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
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RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|---|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|
| | 07
11
22 | 06
13
22 | 05
33
00 | 05
98
00 | 04
88
93 | 05
88
36 | 05
22
66 | 06
11
77 | 07
22
66 | 04
66
33 | 05
99
88 | 05
22
88 | 05
33
00 | 06
33
88 | 05
99
88 | 07
22
88 | 05
11
77 | 07
33
00 | 04
88
77 | 05
77
22 | | | 05
44
11 | 07
22
77 |
| | 01
11
11
55
11 | 01
11
11
55
22 | 01
11
11
66
11 | 01
11
11
77
22 | 01
11
11
77
11 | 01
33
33
77
22 | 03
33
33
11
22 | 03
33
33
22
11 | 03
33
33
22
22 | 03
33
33
33
22 | 03
33
33
77
11 | 03
33
33
77
22 | 05
55
55
44
44 | 05
55
55
44
44 | 05
55
55
88
88 | 05
55
55
99
21 | 07
77
77
55
11 | 07
77
77
55
22 | 04
77
77
66
11 | 05
77
77
66
22 | 05
44
44
66
22 | 07
99
99
99
21 | 06
99
99
99
22 | 03
66
66
99
01 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|---|--|
| Mammary Gland | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atypical Focus | 1 | | | | | | | | | | | | | | | | | | | | 2 | | | | | |
| Fibrosis | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Galactocoele | X | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lobular | 3 | | 3 | | 2 | | 4 | | 4 | | 3 | | 3 | | 2 | | 2 | | 4 | | 4 | | 2 | | 2 | |
| Inflammation, Chronic | | | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolus, Dilatation | 3 | | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | | 2 | | 3 | | 2 | | 3 | |
| Duct, Dilatation | 3 | | 4 | | 2 | | 4 | | 3 | | 3 | | 2 | | 3 | | 2 | | 3 | | 4 | | 2 | | 3 | |
| Skin | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst Epithelial Inclusion | X | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Foot, Hyperplasia | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | |
| Foot, Edema | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Fibrosis | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | |
| Foot, Inflammation, Chronic Active | 4 | | 4 | | 4 | | 4 | | 4 | | 3 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | | 4 | |
| Foot, Necrosis | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Ulcer | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|--|--|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|---|--|--|--|---|--|
| Bone, Femur | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Osteopetrosis | | | | | | | | | | | | | | | | | | | | | 3 | | | | | |
| Skeletal Muscle | | | | | | | | | | | | | + | | | | | | | | | | | | + | |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Brain, Brain Stem | + | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|
| | 0712 | 0632 | 0530 | 0550 | 0489 | 0588 | 0552 | 0611 | 0722 | 0466 | 0599 | 0552 | 0633 | 0763 | 0588 | 0728 | 0553 | 0771 | 0773 | 0448 | 0577 | 0554 | 0742 | 0678 | | | 0361 |
| Compression | 2 | 2 | 3 | | 2 | | 2 | 1 | | 4 | 1 | 1 | 2 | | | | | | 4 | 3 | 4 | 3 | 1 | 2 | 4 | 4 | |
| Gliosis | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Hemorrhage | | | 2 | | | | | | | | | 2 | | | | | | 3 | | 2 | | | | | | 2 | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | 3 | | | | | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Ventricle, Dilatation | | | 2 | | 2 | | | | | | | | | | | | | | 2 | | 1 | 1 | | | 1 | 1 | |
| Nerve Trigeminal | | | | | | | | + | | + | | | | | | | | | + | | | | | | | + | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | 1 | | | | | | | | |
| Peripheral Nerve, Sciatic | | | | | | | | + | | + | | | | | | | | | + | | | | | | | + | |
| Peripheral Nerve, Tibial | | | | | | | | + | | + | | | | | | | | | + | | | | | | | + | |
| Spinal Cord, Cervical | | | | | | | | + | | + | | | | | | | | | + | | | | | | | + | |
| Spinal Cord, Lumbar | | | | | | | | + | | + | | | | | | | | | + | | | | | | | + | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | |
| Spinal Cord, Thoracic | | | | | | | | + | | + | | | | | | | | | + | | | | | | | + | |
| RESPIRATORY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lung | + | + | + | + | + | + | + | + | | + | + | + | + | + | + | | + | + | | + | + | + | | + | + | + | |
| Foreign Body | | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Histiocyte | | | | 4 | | | | 1 | | | | | | | 4 | | | | | | 2 | | | | | | |
| Inflammation, Granulomatous | | | | 4 | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|
| | 0712 | 0632 | 0530 | 0550 | 0489 | 0583 | 0556 | 0671 | 0742 | 0555 | 0555 | 0666 | 0759 | 0463 | 0593 | 0788 | 0575 | 0773 | 0487 | 0552 | | | 0557 | 0727 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 2 | 3 |
| | 2 | 2 | 0 | 0 | 9 | 3 | 6 | 7 | 6 | 3 | 8 | 8 | 0 | 8 | 8 | 8 | 3 | 7 | 0 | 7 | 2 | 1 | 7 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bronchiole, Epithelium, Hyperplasia | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Nose | + | + | + | + | + | + | + | + | | + | + | + | + | + | | + | + | | + | + | + | | + | + | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | 4 | | |
| Osteopetrosis | | | | | | | | | | | | | | | | | | | | | | | 2 | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 4 | | | | 3 | | | | | | | | | | | 2 | | 1 | | 4 | | | | | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | 2 | | | | 2 | | | | | | | | | | | 1 | | | | | | | | | |
| Respiratory Epithelium, Hyperplasia, Goblet Cell | | | | | | | | | | | | | | | | | 2 | | | 2 | | | | | |
| Transitional Epithelium, Accumulation, Hyaline Droplet | | | | 3 | | | | | | | | | | | | | | | | | | | | | |
| Trachea | + | + | A | + | + | + | + | + | | + | + | + | A | + | + | | + | + | | + | + | + | | + | + |
| Inflammation, Chronic Active | 2 | | | | | | | | | | | | | | | | | | | | | | | | |

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | | | |
| Casts Protein | | | | 1 | | | | | | | | | | | | | | | | | 1 | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | 1 | | 1 | | | | 2 | 2 | 2 | 1 | | | 1 | 1 | 1 | 2 | 2 | 1 | 1 | | | 1 | | | 2 | | 1 | 2 |
| Nephropathy | 3 | 2 | | | | 1 | 1 | 2 | 3 | 1 | | | 1 | 3 | | | | | 4 | 1 | 2 | 2 | | | | | 1 | |
| Cortex, Cyst | | | | X | | | | X | | | | | | | X | | | X | | | | | | | | | | |
| Renal Tubule, Cyst | | | | X | | | | X | | | X | X | | | | | X | | | | | | | | | | | |
| Transitional Epithelium, Hyperplasia | | | | 2 | 1 | | | | 1 | | | | 2 | | | 1 | 1 | | | 1 | | | 2 | | | 2 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | 0 | |
| | | 6 | |
| | | 1 | |
| | | 1 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 3 | |
| | | 0 | |
| | | 2 | |
| | | | * TOTALS |

ALIMENTARY SYSTEM

| | | | | | |
|---|---|---|--|--|--------|
| Esophagus | + | | | | 22 |
| Intestine Large, Colon | + | | | | 21 |
| Intestine Small, Duodenum
Fibrosis | | | | | 1 3.0 |
| Intestine Small, Ileum | + | | | | 18 |
| Intestine Small, Jejunum
Dilatation | | | | | 2 4.0 |
| Fibrosis | | | | | 1 4.0 |
| Inflammation, Chronic Active | | | | | 1 4.0 |
| Metaplasia, Osseous | | | | | 1 3.0 |
| Epithelium, Hyperplasia | | | | | 1 4.0 |
| Liver | + | | | | 26 |
| Basophilic Focus | X | | | | 14 |
| Clear Cell Focus | | | | | 1 |
| Deformity | | | | | 1 |
| Degeneration, Cystic | | | | | 2 1.5 |
| Fatty Change | | | | | 3 1.7 |
| Infiltration Cellular, Mononuclear Cell | | | | | 10 1.2 |
| Mineralization | | | | | 1 1.0 |
| Mixed Cell Focus | | | | | 1 |
| Tension Lipidosis | | 3 | | | 7 3.1 |
| Vacuolization Cytoplasmic | | | | | 7 1.4 |
| Bile Duct, Hyperplasia | | | | | 1 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | | DAY ON TEST | | |
|---|---|-------------|-----------------|-----|
| | | ANIMAL ID | | |
| | | 0 | | |
| | | 6 | | |
| | | 1 | | |
| | | 1 | | |
| | | 0 | | |
| | | 9 | | |
| | | 3 | | |
| | | 0 | | |
| | | 2 | | |
| | | | * TOTALS | |
| Capsule, Fibrosis | | | 1 | 2.0 |
| Mesentery | | | 1 | |
| Fat, Inflammation, Granulomatous | | | 1 | 4.0 |
| Fat, Necrosis | | | 1 | 4.0 |
| Pancreas | + | | 26 | |
| Infiltration Cellular, Lymphocyte | 1 | | 13 | 1.5 |
| Inflammation, Chronic Active | | | 1 | 2.0 |
| Pigmentation | | | 5 | 1.2 |
| Acinar Cell, Hyperplasia | | | 2 | 4.0 |
| Acinus, Degeneration | 1 | | 16 | 1.9 |
| Stomach, Forestomach | + | | 22 | |
| Stomach, Glandular | + | | 21 | |
| Tongue | | | 1 | |
| Ulcer | | | 1 | 3.0 |
| CARDIOVASCULAR SYSTEM | | | | |
| Blood Vessel | + | | 26 | |
| Heart | + | | 26 | |
| Cardiomyopathy | 1 | | 22 | 1.5 |
| ENDOCRINE SYSTEM | | | | |
| Adrenal Cortex | + | | 26 | |
| Angiectasis | 3 | | 9 | 3.6 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Bisphenol A

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2 Year Animals

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Lab: NCTR

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RATS FEMALE
F1 0.50 EE2 F | | DAY ON TEST | | |
|---|---|-------------|----|-----------------|
| | | ANIMAL ID | | |
| | | 0 | | |
| | | 6 | | |
| | | 1 | | |
| | | 1 | | |
| | | 0 | | |
| | | 9 | | |
| | | 3 | | |
| | | 0 | | |
| | | 2 | | |
| | | | | * TOTALS |
| Degeneration, Cystic | 4 | | 22 | 3.2 |
| Fibrosis | | | 1 | 2.0 |
| Hemorrhage | | | 1 | 4.0 |
| Hyperplasia | | | 1 | 1.0 |
| Hypertrophy | | | 2 | 3.0 |
| Metaplasia, Osseous | | | 1 | 3.0 |
| Pigmentation | | | 2 | 2.5 |
| Vacuolization Cytoplasmic | | | 1 | 2.0 |
| Adrenal Medulla | + | | 26 | |
| Hyperplasia | | | 8 | 1.5 |
| Islets, Pancreatic | + | | 26 | |
| Parathyroid Gland | + | | 26 | |
| Hyperplasia | | | 2 | 1.5 |
| Pituitary Gland | + | | 26 | |
| Angiectasis | 4 | | 17 | 4.0 |
| Hemorrhage | | | 3 | 4.0 |
| Pars Distalis, Cyst | | | 2 | |
| Pars Distalis, Hyperplasia | | | 6 | 3.3 |
| Thyroid Gland | + | | 25 | |
| Ultimobranchial Cyst | X | | 8 | |
| C-cell, Hyperplasia | | | 9 | 1.6 |

GENERAL BODY SYSTEM

NONE

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 I .. Insufficient tissue BLANK .. Not examined microscopically

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 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | |
|--|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | 0 | |
| | | 6 | |
| | | 1 | |
| | | 1 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 3 | |
| | | 0 | |
| | | 2 | |
| | | | * TOTALS |

GENITAL SYSTEM

| | | | | |
|--|---|---|----|--------|
| Clitoral Gland | | | | |
| Inflammation, Suppurative | | | 6 | 4 4.0 |
| Duct, Dilatation | | | | 6 3.8 |
| Ovary | + | | 26 | |
| Atrophy | | 2 | | 26 3.9 |
| Cyst | | | | 5 |
| Hyperplasia, Sertoliform | | 1 | | 3 2.0 |
| Bursa, Cyst | | | | 2 |
| Follicle, Cyst | | | | 3 |
| Granulosa Cell, Hyperplasia | | | | 1 3.0 |
| Oviduct | + | | 26 | |
| Uterus | + | | 26 | |
| Atrophy | | | | 9 3.4 |
| Metaplasia, Squamous | | | | 4 1.5 |
| Endometrial Glands, Hyperplasia | | | | 1 2.0 |
| Endometrium, Cyst | | | | 2 |
| Endometrium, Hyperplasia | | 1 | | 2 1.5 |
| Endometrium, Hyperplasia, Cystic | | | | 14 2.5 |
| Lumen, Dilatation | | | | 3 4.0 |
| Vagina | + | | 26 | |
| Atrophy | | | | 3 3.0 |
| Infiltration Cellular, Polymorphonuclear | | | | 2 3.0 |
| Epithelium, Degeneration | | | | 2 2.5 |
| Epithelium, Hyperplasia | | | | 2 2.5 |

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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | | |
|---|-----------------------|------------------|-----|
| | | 0
6
1
1 | |
| | ANIMAL ID | | |
| | 0
9
3
0
2 | | |
| | | * TOTALS | |
| Epithelium, Mucification | 4 | 23 | 3.1 |

HEMATOPOIETIC SYSTEM

| | | | |
|---|---|----|--------|
| Bone Marrow | + | 26 | |
| Hypocellularity | | | 1 3.0 |
| Myeloid Cell, Hyperplasia | | | 2 2.5 |
| Lymph Node | | 3 | |
| Iliac, Infiltration Cellular, Plasma Cell | | | 1 4.0 |
| Lumbar, Hyperplasia, Lymphoid | | | 1 4.0 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | 1 4.0 |
| Popliteal, Infiltration Cellular, Plasma Cell | | | 1 4.0 |
| Lymph Node, Mandibular | | 1 | |
| Hyperplasia, Lymphoid | | | 1 4.0 |
| Infiltration Cellular, Plasma Cell | | | 1 4.0 |
| Spleen | + | 26 | |
| Hematopoietic Cell Proliferation | | | 10 2.3 |
| Hyperplasia, Lymphoid | | | 1 3.0 |
| Infiltration Cellular, Polymorphonuclear | | | 1 2.0 |
| Necrosis | | | 1 3.0 |
| Pigmentation | 2 | 26 | 3.3 |
| Thymus | + | 26 | |
| Atrophy | 4 | 25 | 3.6 |
| Necrosis | | | 1 4.0 |
| Epithelial Cell, Hyperplasia | | | 1 3.0 |

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | |
|---|-------------|---|-----------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | 0 | |
| | | 6 | |
| | | 1 | |
| | | 1 | |
| | ANIMAL ID | 0 | |
| | | 9 | |
| | | 3 | |
| | | 0 | |
| | | 2 | |
| | | | * TOTALS |

INTEGUMENTARY SYSTEM

| | | | |
|------------------------------------|---|----|--------|
| Mammary Gland | + | 26 | |
| Atypical Focus | 1 | | 3 1.3 |
| Fibrosis | | | 1 4.0 |
| Galactocele | | | 2 |
| Hyperplasia, Lobular | 4 | | 23 2.8 |
| Inflammation, Chronic | | | 1 4.0 |
| Alveolus, Dilatation | | | 22 2.2 |
| Duct, Dilatation | | | 21 2.7 |
| Skin | | 9 | |
| Cyst Epithelial Inclusion | | | 1 |
| Epithelium, Foot, Hyperplasia | | | 8 4.0 |
| Foot, Edema | | | 4 4.0 |
| Foot, Fibrosis | | | 8 4.0 |
| Foot, Inflammation, Chronic Active | | | 8 3.9 |
| Foot, Necrosis | | | 6 4.0 |
| Foot, Ulcer | | | 7 4.0 |

MUSCULOSKELETAL SYSTEM

| | | | |
|-----------------|---|----|-------|
| Bone, Femur | + | 26 | |
| Osteopetrosis | | | 1 3.0 |
| Skeletal Muscle | | 3 | |

NERVOUS SYSTEM

| | | | |
|-------------------|---|----|--|
| Brain, Brain Stem | + | 26 | |
|-------------------|---|----|--|

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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Lab: NCTR

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RATS FEMALE
F1 0.50 EE2 F | | DAY ON TEST | ANIMAL ID | * TOTALS | |
|---|--|-------------|-----------|----------|-----|
| | | 0 | | | |
| | | 6 | | | |
| | | 1 | | | |
| | | 1 | | | |
| | | 0 | | | |
| | | 9 | | | |
| | | 3 | | | |
| | | 0 | | | |
| | | 2 | | | |
| Compression | | 4 | | 19 | 2.6 |
| Gliosis | | | | 1 | 2.0 |
| Hemorrhage | | | | 5 | 2.2 |
| Brain, Cerebellum | | + | | 26 | |
| Hemorrhage | | | | 1 | 3.0 |
| Brain, Cerebrum | | + | | 26 | |
| Ventricle, Dilatation | | 1 | | 8 | 1.4 |
| Nerve Trigeminal | | | | 4 | |
| Axon, Degeneration | | | | 1 | 1.0 |
| Peripheral Nerve, Sciatic | | | | 4 | |
| Peripheral Nerve, Tibial | | | | 4 | |
| Spinal Cord, Cervical | | | | 4 | |
| Spinal Cord, Lumbar | | | | 4 | |
| Axon, Degeneration | | | | 1 | 2.0 |
| Spinal Cord, Thoracic | | | | 4 | |
| RESPIRATORY SYSTEM | | | | | |
| Lung | | + | | 22 | |
| Foreign Body | | | | | 1 |
| Infiltration Cellular, Histiocyte | | | | 4 | 2.8 |
| Inflammation, Granulomatous | | | | 1 | 4.0 |

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 Species/Strain: RATS/Sprague Dawley (NCTR)

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 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 0.50 EE2 F | DAY ON TEST | ANIMAL ID | * TOTALS |
|---|-------------|-----------|----------|
| | 0 | 0 | |
| | 6 | 9 | |
| | 1 | 3 | |
| | 1 | 0 | |
| | | 2 | |

Bronchiole, Epithelium, Hyperplasia

1 4.0

Nose

+

22

Inflammation, Chronic Active

1 4.0

Osteopetrosis

1 2.0

Olfactory Epithelium, Accumulation, Hyaline Droplet

4

7 2.7

Respiratory Epithelium, Accumulation, Hyaline Droplet

3 1.7

Respiratory Epithelium, Hyperplasia, Goblet Cell

2 2.0

Transitional Epithelium, Accumulation, Hyaline Droplet

1 3.0

Trachea

+

20

Inflammation, Chronic Active

1 2.0

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

Kidney

+

26

Casts Protein

2 1.0

Infiltration Cellular, Polymorphonuclear

1 2.0

Mineralization

17 1.4

Nephropathy

2

15 1.9

Cortex, Cyst

2

Renal Tubule, Cyst

6

Transitional Epithelium, Hyperplasia

9 1.4

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Bisphenol A
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2 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|
| | 0
3
8
6 | 0
6
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3 | 0
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5 | 0
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1 | 0
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6
9
2 | 0
5
6
9
2 | 0
5
6
9
2 | 0
5
6
9
3 | |

Hepatocyte, Degeneration
 Hepatocyte, Necrosis
 Oval Cell, Hyperplasia

1

Mesentery
 Fat, Necrosis

+
3

Oral Mucosa

Pancreas
 Basophilic Focus
 Infiltration Cellular, Lymphocyte
 Inflammation, Chronic Active
 Lipomatosis
 Pigmentation
 Polyarteritis
 Acinus, Degeneration
 Artery, Fibrosis
 Artery, Inflammation, Chronic Active
 Artery, Mineralization

+ + + + + + + + + A + + + + + + + + + + + + +
 X
 1 2 1 2 1 3 2 2 1 1 1 2 1 1 3 1 2
 2
 1 1 1 1 3 4 4 3 4 1 4 1 2 2 2 1 3 3
 4
 2
 3

Stomach, Forestomach

+ + + + + + + + + A + + + + + + + + + + + + +

Stomach, Glandular
 Mineralization

+ + + + + + + + + A + + + + + + + + + + + + +
 3

CARDIOVASCULAR SYSTEM

Blood Vessel
 Mineralization

+
 4

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Experiment Number: 10034 - 04

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Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|
| | 0386 | 0655 | 0555 | 0644 | 0777 | 0855 | 0922 | 0853 | 0766 | 0677 | 0588 | 0499 | 0366 | 0255 | 0177 | 0044 | 0077 | 0066 | 0055 | 0066 | | | 0077 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 01111111111111111111 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cardiomyopathy | | 2 | | 1 | | 2 | | 2 | 1 | 1 | 1 | 1 | 3 | 1 | 1 | | | | | | 1 | | 1 | 1 | 3 |
| Mineralization | | | | | | | | | | | | 4 | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Accessory Adrenal Cortical Nodule | | | | | | X | | | | | | | | | | | | | | | | | | |
| Angiectasis | | 3 | | | | | | | | | 2 | | | | | | | 3 | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | 3 | | 2 | | | | 4 | | | | 3 | 4 | | 2 | 4 | 1 | | 2 | 2 | | | | 1 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | | | | | | | | | 1 | 2 | | | | | | | | | | | | |
| Hypertrophy | | | | | 1 | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | 4 | | | | | | 1 | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | 1 | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | M | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | 3 | 1 | | | | | | | | | | | | | 4 | | | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | 4 | | | | | | 4 | 4 | | | | | 4 | 4 | | | | | | 4 | | | 4 |
| Pars Distalis, Cyst | | | | | X | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | 3 | | 3 | 3 | 4 | | 2 | | | | | 2 | 4 | | | | 4 | 3 | 4 | 2 | 2 | | 4 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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1 |

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|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ultimobranchial Cyst | | X | | | | | | | | | | | | | | | | | | | | | | | |
| C-cell, Hyperplasia | 1 | 1 | 1 | | | | | 2 | 3 | | | | 2 | 1 | | 1 | | 2 | 1 | 2 | 2 | 2 | 3 | 2 | |
| Follicular Cell, Hyperplasia | | | | | 2 | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Tissue NOS | | | | | + | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|---|---|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|---|---|---|--|
| Clitoral Gland | | | + | | | | | | | | + | | | | | | | | | | | + | + | | |
| Atrophy | | | | | | | | | | | 3 | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Inflammation, Suppurative | | | | 4 | | | | | | | | | | | | | | | | | | | 2 | 4 | |
| Duct, Dilatation | | | | 4 | | | | | | | | | | | | | | | | | | | 3 | 4 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Ovary | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | 4 | 3 | 3 | 2 | 2 | 2 | 3 | 3 | 4 | | 2 | 3 | 4 | 4 | 3 | 3 | 3 | 2 | 4 | 2 | 2 | 4 | 2 | 3 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Sertoliform | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Tubulostromal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bilateral, Follicle, Cyst | | | | | | | X | | | | | | | | | | | | | | | | | | |
| Bursa, Cyst | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Follicle, Cyst | | | | | | | | | X | X | | | | | | X | | | | | | | | | |
| Granulosa Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Rete Ovarii, Hyperplasia | | | | | | | | | 4 | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Oviduct | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|---------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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3 |

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|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Uterus | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | | | | | | | 3 | | | | | | | | | | | | | | | | | 3 |
| Metaplasia, Squamous Cervix, Cyst, Squamous Endometrial Glands, Hyperplasia Endometrium, Cyst Endometrium, Hyperplasia Endometrium, Hyperplasia, Cystic Lumen, Dilatation | | 1 | | | | | | | 2 | | | | 1 | | | | | 2 | | | 1 | | | | |
| | | 2 | 2 | | | 2 | | | | | 1 | 4 | | | 1 | 3 | | | 3 | 3 | 4 | | 2 | 1 | 1 |
| | | | 4 | | 2 | 2 | 2 | | | 1 | 4 | | | 4 | | | | | 3 | 3 | 4 | | 2 | 2 | 2 |
| Vagina | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | | | | 3 | | | | | | 4 | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear Epithelium, Degeneration Epithelium, Hyperplasia Epithelium, Mucification Lumen, Dilatation | | 3 | | 4 | | 2 | | | | | | | | | | | | | | | | | | 2 | |
| | | | | | 2 | | | | | | | | | | | | | | | | | | | 3 | |
| | | 4 | 3 | 4 | 4 | 2 | 4 | | 3 | 3 | | 3 | 4 | | 4 | 4 | 3 | | 4 | | 3 | 2 | 4 | 3 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow Hypocellularity | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Lymph Node Lumbar, Degeneration, Cystic Lumbar, Hyperplasia, Lymphoid Lumbar, Infiltration Cellular, Plasma Cell Mediastinal, Hyperplasia, Lymphoid Pancreatic, Hyperplasia, Lymphoid Pancreatic, Infiltration Cellular, Histiocyte | | + | | | | + | | | | | | + | + | | | | | | | | | + | | |
| | | | | | | | | | | | | 3 | | | | | | | | | | | | |
| | | 3 | | | | 4 | | | | | | 3 | | | | | | | | | | | | |
| | | 4 | | | | 4 | | | | | | 3 | | | | | | | | | | | | |
| | | | | | | | | | | | | | 4 | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
|--|-----------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|------------------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE | 3 | 6 | 5 | 5 | 5 | 6 | 4 | 7 | 5 | 7 | 6 | 7 | 6 | 6 | 5 | 5 | 7 | 4 | 4 | 7 | 6 | 6 | 5 | 6 | 7 | 7 | |
| F1 Veh. StDose F | 8 | 0 | 9 | 2 | 0 | 5 | 9 | 2 | 8 | 2 | 7 | 0 | 2 | 6 | 1 | 7 | 0 | 9 | 6 | 0 | 3 | 3 | 0 | 8 | 2 | 8 | |
| | 6 | 3 | 5 | 0 | 0 | 2 | 9 | 5 | 3 | 6 | 8 | 0 | 9 | 3 | 5 | 0 | 8 | 3 | 9 | 8 | 7 | 5 | 3 | 2 | 8 | | |
| | ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | females
(cont...) |
| | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 | |
| | | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | | |
| | | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 2 | 2 | 3 | |
| | | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | |

Popliteal, Infiltration Cellular, Plasma Cell
Renal, Degeneration, Cystic
Renal, Hyperplasia, Lymphoid
Renal, Infiltration Cellular, Plasma Cell

4

3

3

Lymph Node, Mandibular
Degeneration, Cystic
Hyperplasia, Lymphoid
Infiltration Cellular, Plasma Cell

+

4

+

4

3

4

Spleen
Hematopoietic Cell Proliferation
Hyperplasia, Lymphoid
Pigmentation

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | 2 | 4 | 2 | 3 | 3 | 2 | 3 | | | 3 | 2 | 4 | | | 3 | | 3 | 2 | | | 3 | | | 3 | 3 |
| | 3 | 2 | 1 | | | | | 2 | | 4 | | | 2 | | 3 | 2 | 2 | 2 | 2 | 2 | 3 | | | | | 3 | |

Thymus
Atrophy
Cyst
Polyarteritis
Epithelial Cell, Hyperplasia

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | | 4 | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | | 4 | 3 | 4 | 4 | | |
| | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

Mammary Gland
Atypical Focus
Galactocele
Hyperplasia, Lobular
Metaplasia, Osseous
Alveolus, Dilatation
Duct, Dilatation

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | | | | | | | | | | | | | | | | | | | | | | 2 | | | 2 | | |
| | | 4 | 4 | | | 3 | 2 | 3 | 4 | 2 | | 4 | 3 | 4 | | 4 | 4 | 1 | 3 | 2 | 2 | 4 | 3 | 4 | 3 | | |
| | | | | | | | | | 3 | | | | | | | | | | | | | | | | | | |
| | | 3 | | | | | | | | | | | | 2 | 3 | | | | | | | | | 2 | | | |
| | | 3 | | | | 2 | | | | 2 | | | | 4 | 4 | | 3 | 4 | | 2 | 2 | | 2 | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|----------------------|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | | | |
| | 3 | 6 | 5 | 5 | 5 | 6 | 4 | 7 | 5 | 7 | 6 | 7 | 6 | 6 | 5 | 5 | 7 | 4 | 4 | 7 | 6 | 6 | 5 | 6 | 6 | 7 |
| | 8 | 0 | 9 | 2 | 0 | 5 | 9 | 2 | 8 | 2 | 7 | 0 | 2 | 6 | 1 | 7 | 0 | 9 | 6 | 0 | 3 | 3 | 0 | 8 | 2 | 8 |
| | 6 | 3 | 5 | 0 | 0 | 2 | 9 | 5 | 3 | 6 | 8 | 0 | 9 | 3 | 5 | 0 | 8 | 3 | 9 | 8 | 7 | 5 | 3 | 2 | 8 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 5 | 5 | 5 | 5 | 5 |
| | 2 | 2 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | |
| | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 5 | 5 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 1 | 1 | 1 | 2 | 2 | 3 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|--|--|--|--|---|--|--|---|--|--|--|--|---|--|---|--|--|--|--|--|---|--|---|--|--|--|
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Foot, Hyperplasia | | | | | + | | | + | | | | | + | | + | | | | | | + | | + | | | |
| Foot, Edema | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Foot, Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tarsal, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tarsal, Hyperostosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tarsal, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tarsal, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tarsal, Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone, Femur | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fibrous Osteodystrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Brain, Brain Stem | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Compression | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebellum | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Brain, Cerebrum | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ventricle, Dilatation | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|----------------------|
| | 0386 | 0635 | 0555 | 0556 | 0474 | 0757 | 0575 | 0767 | 0676 | 0666 | 0555 | 0557 | 0700 | 0966 | 0033 | 0333 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | 0000 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 01112233445566778899 | |

Nerve Trigeminal +
 Peripheral Nerve, Sciatic +
 Peripheral Nerve, Tibial +
 Spinal Cord, Cervical +
 Spinal Cord, Lumbar +
 Spinal Cord, Thoracic +

RESPIRATORY SYSTEM

Lung + + + + + + + + + A + + + + + + + + + + + + + + + +
 Congestion 4 3
 Hemorrhage
 Infiltration Cellular, Histiocyte 1 2 1
 Nose + + + + + + + + + A + + + + + + + + + + + + + + + +
 Olfactory Epithelium, Accumulation, Hyaline Droplet 2 1 1 2
 Respiratory Epithelium, Accumulation, Hyaline Droplet
 Respiratory Epithelium, Hyperplasia, Goblet Cell
 Upper Molar, Inflammation, Chronic Active
 Trachea + + + + + + + + + A + + + + + + + + + + + + + + + +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|
| | 0625 | 0730 | 0730 | 0778 | 0751 | 0755 | 0772 | 0725 | 0755 | 0744 | 0774 | 0777 | 0777 | 0755 | 0755 | 0777 | 0755 | 0744 | 0766 | 0777 | 0755 | 0766 | 0777 | 0777 | |
| ANIMAL ID | 05632 | 05641 | 05642 | 05651 | 05652 | 05671 | 05672 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 3 | 3 | 2 | 7 | 0 | 2 | 6 | 7 | 9 | 1 | 2 | 2 | 3 | 3 | 2 | 1 | 6 | 3 | 2 | 2 | 2 | 5 | 6 | 7 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Esophagus | + | | | | + | + | | + | + | + | + | | | + | + | + | + | + | + | | + | + | + | | + | 38 |
| Intestine Large, Colon | + | | | | + | + | | + | + | + | + | | | + | + | + | + | + | + | | + | + | + | | + | 38 |
| Intestine Small, Ileum | + | | | | + | A | | + | + | + | + | | | + | + | + | + | + | + | | + | + | + | | + | 36 |
| Intestine Small, Jejunum | | | | | | | | + | | | | | | | | | | | | | | | | | | 1 |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | 1 | 2 | | 3 1.7 |
| Basophilic Focus | X | | X | | | X | | | | X | | X | X | | | | | X | X | | | | | X | | 22 |
| Clear Cell Focus | | | | | | | | | X | | | | X | | | | | X | X | | | | | | | 9 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Degeneration, Cystic | | | | | | | | | | | | | | 1 | | | | | | | | | | | | 2 1.0 |
| Eosinophilic Focus | | | | | | | | | | | X | | | | | | | | | | | | | | | 1 |
| Fatty Change | | | | | | | 3 | 4 | | 2 | | 3 | | 2 | | 3 | 3 | 3 | 2 | 1 | 3 | 4 | 3 | | 3 | 19 2.7 |
| Hematopoietic Cell Proliferation | | | | | | | | | | 1 | | | | | | | | 1 | | | | | | | 1 | 3 1.0 |
| Hepatodiaphragmatic Nodule | | | | | | X | | | | | | | | | | | | | | | | | | | | 2 |
| Infiltration Cellular, Mononuclear Cell | | | 3 | 2 | | 1 | 1 | | 1 | | 1 | | | | 1 | 1 | | 1 | 1 | 1 | | | 1 | 1 | | 29 1.3 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Tension Lipidosis | | 1 | | | | | | | | | | | | | | | | | | | | | | | 4 | 4 2.8 |
| Vacuolization Cytoplasmic | | | | 2 | 1 | | | | 1 | | 1 | | 2 | | | | | | | | | | | | | 12 1.7 |
| Bile Duct, Hyperplasia | | 1 | 4 | 1 | | | | 1 | | | 1 | 1 | | 1 | | | | | 1 | 1 | | | 1 | 2 | | 20 1.7 |
| Biliary Tract, Cyst | X | | | | | | | | | | | | | | | | | | | | X | | | | | 3 |
| Biliary Tract, Cyst, Multiple | | | | X | | | | | | | | | | | | | | | | | | | | | | 1 |
| Biliary Tract, Fibrosis | | | 2 | | | | | | | | | | | | | | | | | | | | | 1 | | 7 1.1 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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 M .. Missing tissue
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 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
| | 0625 | 0730 | 0730 | 0778 | 0571 | 0553 | 0728 | 0256 | 0074 | 0046 | 0074 | 0077 | 0077 | 0574 | 0554 | 0724 | 0570 | 0468 | 0677 | 0523 | | 0625 | 0715 | 0779 | 0680 |
| ANIMAL ID | 05632 | 05641 | 05642 | 05651 | 05652 | 05671 | 05672 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Hepatocyte, Degeneration | 4 | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | | | | | | | | | | | | | | | | | | | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | | | | | | | | | | | | | | | | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3.0 | | | | | | | | | | | | | | | | | | | | |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | + | 1 | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | 1 | 2 | 2 | 1 | 2 | | 3 | | 2 | 2 | | 3 | | 2 | | 1 | 2 | | 3 | 3 | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2.8 | | | | | | | | | | | | | | | | | | | | |
| Lipomatosis | | | | | | | | | | | | | | | | | | | | | | | | | 3.0 | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | 1 | | 1 | 2 | 1 | 1 | | 1 | 1 | | | | 2 | 1 | 1 | | | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | | 4.0 | | | | | | | | | | | | | | | | | | | | |
| Acinus, Degeneration | 1 | 3 | 3 | 2 | 3 | 4 | 3 | 1 | 4 | 3 | 1 | 4 | | 2 | | | | 4 | 3 | 4 | 3 | 2 | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Artery, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | 4.0 | | | | | | | | | | | | | | | | | | | | |
| Artery, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | 2.0 | | | | | | | | | | | | | | | | | | | | |
| Artery, Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 3.0 | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | + | | | + | + | | + | + | + | + | | | + | + | + | + | + | | + | + | + | | + | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | + | | | + | + | | + | + | + | + | | | + | + | + | + | + | | + | + | + | | + | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 3.0 | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0625 | 0730 | 0730 | 0778 | 0571 | 0573 | 0728 | 0260 | 0574 | 0476 | 0774 | 0777 | 0777 | 0575 | 0575 | 0772 | 0363 | 0773 | 0462 | 0672 | 0565 | 0775 | 0777 | 0676 | | 0777 | 0678 |
| ANIMAL ID | 05632 | 05641 | 05642 | 05651 | 05652 | 05671 | 05672 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Cardiomyopathy | | | 3 | | 1 | 1 | 1 | 1 | | 1 | | 1 | 1 | | 1 | | 1 | | 1 | | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 32 |
| Mineralization | | | | | | | | 1 | | | | | | | | | | | | | | | | | | | | 2 |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Accessory Adrenal Cortical Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Angiectasis | | | | 2 | | 4 | | | | | | | | | | | | | | | | | | | 2 | | | 6 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Degeneration, Cystic | 4 | 1 | 4 | 1 | 4 | 2 | 4 | | 4 | 3 | | 4 | 2 | 2 | 4 | 3 | | | | | | | | | | | | 27 |
| Hemorrhage | | | 3 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Hyperplasia | | | | | | | | | | | | 2 | | | | | | | | | | | | | | | | 3 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | 3 | | | | | | | | | | | | 1 | | | 4 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hyperplasia | | | 1 | | | | 2 | | | | | | | 1 | 1 | | 1 | | | | | | | | | 2 | | 7 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hyperplasia | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | M | + | + | + | + | + | + | + | M | + | + | 45 |
| Hyperplasia | | | | | | | | | | | | | | | 1 | | | | | | | | | | | | | 5 |
| Pituitary Gland | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Angiectasis | | | | 4 | | 4 | | | | | | | | | | | | | | | | | | | | | | 12 |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Pars Distalis, Hyperplasia | | | | | 4 | | 1 | | | | 4 | 2 | 2 | 1 | | | | | | | | | | | | | | 25 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
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 I .. Insufficient tissue
 M .. Missing tissue
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Bisphenol A

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RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|--------|
| | 0652 | 0730 | 0730 | 0778 | 0571 | 0553 | 0728 | 0260 | 0574 | 0496 | 0774 | 0777 | 0777 | 0574 | 0554 | 0734 | 0572 | 0463 | 0770 | 0562 | | 0775 | 0777 | 0678 | 0776 | 0780 |
| ANIMAL ID | 05632 | 05641 | 05644 | 05651 | 05655 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Ultimobranchial Cyst | | | | | | | | | | | | | | | | | | | | | | | X | | | 2 |
| C-cell, Hyperplasia | | | | 2 | 2 | 2 | | | 2 | 2 | | | 1 | 2 | | | | 2 | | 4 | | 1 | | 2 | | 26 1.8 |
| Follicular Cell, Hyperplasia | | | | | | | | | | 3 | | | | | | 3 | | | | | | | 2 | | | 4 2.5 |

GENERAL BODY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Tissue NOS | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
|------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|-------|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | | | 6 | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 4.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 3.2 |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 3.8 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Atrophy | 2 | 3 | 3 | 4 | 2 | 3 | 2 | 1 | 2 | 3 | 2 | 2 | 2 | 2 | 3 | 3 | 2 | 2 | 2 | 3 | | 2 | 2 | 2 | 2 | 47 2.6 | |
| Cyst | | | | | | | | | X | | X | | X | | X | | | | X | | | | X | | | 6 | |
| Hyperplasia, Sertoliform | | | | 4 | | | | | | | | | 3 | | | 2 | | | | 4 | | | | 3 | | 6 2.8 | |
| Hyperplasia, Tubulostromal | | | | | | | | | | | 2 | | | | | | | | | | | | | | | 1 2.0 | |
| Bilateral, Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Bursa, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Follicle, Cyst | | | X | | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Granulosa Cell, Hyperplasia | | | | | | | | | | | 4 | 4 | | | | | | | | | | | | | | 2 4.0 | |
| Rete Ovarii, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |

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1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|
| | 0625 | 0730 | 0730 | 0778 | 0571 | 0573 | 0728 | 0260 | 0574 | 0476 | 0774 | 0777 | 0777 | 0575 | 0554 | 0773 | 0575 | 0463 | 0772 | 0562 | | 0775 | 0677 | 0777 | 0676 | 0778 |
| ANIMAL ID | 05632 | 05641 | 05642 | 05651 | 05652 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Atrophy | 3 | | 4 | 4 | | 4 | | | | | | 3 | | | | | 3 | | | | 3 | | | | | | 10 3.3 |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | | 5 1.4 |
| Cervix, Cyst, Squamous | | | | | | | | | | | | | | | | | | | | X | | | | | | | 1 |
| Endometrial Glands, Hyperplasia | | | | | | 1 | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Endometrium, Cyst | | | | | X | | | | | | | | | | | | | | | | | | | | | | 1 |
| Endometrium, Hyperplasia | | | | | | 1 | | 1 | 2 | 2 | | 2 | | | | | 1 | 2 | 2 | | | | 2 | | 2 | | 18 1.7 |
| Endometrium, Hyperplasia, Cystic | | | 2 | | | | | | | | | 3 | | | 2 | 1 | 2 | | | | | | | 3 | | | 18 2.3 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | 3 | | | | 3 3.7 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 3.5 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | 4 | | | | | 1 | | | 2 | | | 3 | | 8 2.6 |
| Epithelium, Degeneration | | | | 4 | 4 | | | | | | 3 | | | | | | | | | | | | | | | | 5 3.2 |
| Epithelium, Hyperplasia | | | | | | 2 | | | | | | | | | | | | | | | | 2 | | | | | 6 2.7 |
| Epithelium, Mucification | 4 | 4 | | | 4 | 4 | 2 | | 3 | 2 | 2 | 3 | 4 | 4 | 3 | 3 | 2 | 4 | 2 | 4 | 4 | 3 | 4 | 4 | 4 | | 40 3.4 |
| Lumen, Dilatation | | | | | | | | | 4 | | | | | | | | | | | | | | | | | | 1 4.0 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Hypocellularity | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Lymph Node | | | | | + | | | | + | | | | | | | | | | | | | | | + | + | | 9 |
| Lumbar, Degeneration, Cystic | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | 2 3.5 |
| Lumbar, Hyperplasia, Lymphoid | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | 4 3.5 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | 4 3.8 |
| Mediastinal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Pancreatic, Hyperplasia, Lymphoid | | | | | | | | | | 2 | | | | | | | | | | | | | | | | | 1 2.0 |
| Pancreatic, Infiltration Cellular, Histiocyte | | | | | | | | | | 3 | | | | | | | | | | | | | | | | | 1 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|
| | 0625 | 0730 | 0730 | 0778 | 0571 | 0553 | 0728 | 0260 | 0574 | 0496 | 0714 | 0779 | 0777 | 0574 | 0554 | 0732 | 0570 | 0463 | 0773 | 0562 | | 0777 | 0776 | 0678 | 0778 |
| ANIMAL ID | 05632 | 05641 | 05644 | 05651 | 05655 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 | 05677 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|--|--|--|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | 16 | |
| Epithelium, Foot, Hyperplasia | | | | + | + | | | | | | | | | | | | | | | | | | | | | 13 | 4.0 |
| Foot, Edema | | | | | | | | | | | | | | | | | | | | | | | | | | 7 | 3.4 |
| Foot, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | 4.0 |
| Foot, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 13 | 3.8 |
| Foot, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | 4.0 |
| Foot, Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | 12 | 4.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Bone | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Tarsal, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Tarsal, Hyperostosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Tarsal, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Tarsal, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Tarsal, Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Fibrous Osteodystrophy | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Compression | | | | | | | | | | | | | | | | | | | | | | | | | | 15 | 2.5 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Ventricle, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 1.6 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 0625 | 0730 | 0730 | 0778 | 0551 | 0553 | 0728 | 0260 | 0574 | 0496 | 0744 | 0779 | 0777 | 0554 | 0554 | 0732 | 0332 | 0216 | 0463 | 0727 | 0523 | 0625 | 0775 | 0776 | | 0668 | 0770 |
| ANIMAL ID | 05632 | 05641 | 05642 | 05651 | 05652 | 05671 | 05672 | 05677 | 05678 | 05679 | 05679 | 05679 | 05679 | 05679 | 05679 | 05679 | 05694 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 | 05699 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|--|---|---|---|--|--|--|--|--|--|--|--|--|---|---|---|---|---|---|--|--|--|--|--|--|----|--|---|-----|
| Lung | + | + | | | + | + | | | | | | | | | | | | | | | | | | | | | | | 40 | | | |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.5 |
| Hemorrhage | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Infiltration Cellular, Histiocyte | | | | | | | 4 | | | | | | | | | | 1 | | | | | | | | | | | | | | 7 | 1.7 |
| Nose | + | | | | + | + | | | | | | | | | | | + | + | + | + | + | + | | | | | | | 38 | | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 | 2.0 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Respiratory Epithelium, Hyperplasia, Goblet Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Upper Molar, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Trachea | + | | | | + | + | | | | | | | | | | | | | | | | | | | | | | | 38 | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 04
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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
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 2 Year Animals

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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | |
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 Veh. StDose F | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 6 | 7 | 7 | 7 | 5 | 5 | 7 | 2 | 5 | 4 | 7 | 7 | 7 | 5 | 5 | 7 | 5 | 4 | 6 | 7 | 5 | 6 | 7 | 7 | 6 | |
| | 2 | 3 | 3 | 2 | 7 | 0 | 2 | 6 | 7 | 9 | 1 | 2 | 2 | 3 | 3 | 2 | 1 | 6 | 3 | 2 | 2 | 2 | 1 | 2 | 8 | |
| | 5 | 0 | 0 | 0 | 8 | 1 | 3 | 8 | 0 | 4 | 6 | 4 | 9 | 7 | 4 | 0 | 0 | 8 | 0 | 7 | 3 | 5 | 5 | 9 | 0 | |
| | ANIMAL ID | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | |
| | 6 | 6 | 6 | 6 | 6 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 6 | 6 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | |
| | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | | |
| | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | |

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------------|---------------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 |
| Casts Protein | | | | | | 1 | | | | 1 | | | | | | 1 | | | 1 | | | | 2 | 5 1.2 | |
| Mineralization | | | 2 | 1 | | 2 | 1 | | | 1 | | | 1 | | 2 | 1 | 1 | | 1 | 1 | 1 | | 1 | 2 | 28 1.4 |
| Nephropathy | | 1 | 2 | 1 | | | | | 4 | | | | 2 | 1 | 1 | 1 | 2 | | | | 1 | 1 | 2 | 1 | 28 1.6 |
| Cortex, Cyst | | | | | | | | | | | | X | | | | X | | | | | | X | | 7 | |
| Renal Tubule, Cyst | | | | | | X | | | | | | | | | | X | | | | | | X | | 7 | |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | 1 | | | 2 | | | | 1 | | | | 5 1.2 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
7
2
7 | 0
6
2
5 | 0
3
4
0 | 0
7
2
2 | 0
7
2
8 | 0
5
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8 | 0
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2 | 0
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3 | 0
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3 | 0
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8 | 0
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4 | 0
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7
2 | 0
1
5
7
1 | 0
1
5
8
2 | 0
1
5
8
1 |

Hepatocyte, Necrosis
 Oval Cell, Hyperplasia

1

Mesentery
 Fat, Necrosis

+
3

+
4

Pancreas
 Basophilic Focus
 Infiltration Cellular, Lymphocyte
 Inflammation, Chronic Active
 Lipomatosis
 Pigmentation
 Acinus, Degeneration

+
 3 1 1 1 3 1 3 2 2 3 2 1 3 2 2 1 3 2 2 1
 2 4
 1 1 1 1
 4 1 2 2 4 2 1 4 3 2 4 2 1 4 3 3 2

Stomach, Forestomach
 Epithelium, Hyperplasia

+ +

Stomach, Glandular
 Cyst Epithelial Inclusion

+ A +

CARDIOVASCULAR SYSTEM

Blood Vessel

+ +

Heart
 Cardiomyopathy

+
 3 1 1 2 1 3 2 2 2 2 1 2 1 2 1 2 1 2 2 1 1 1 1

ENDOCRINE SYSTEM

Adrenal Cortex
 Angiectasis

+
 2 4 2 3 3

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | |
|---|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|------------------|------------------|---|
| | 0
7
2
7 | 0
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5 | 0
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2 | 0
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8 | 0
6
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2 | 0
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9
3 | 0
5
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3 | 0
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7 | 0
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8 | 0
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4 | 0
6
2
3 | 0
7
2
6 | | | 0
4
9
0 | 0
7
3
0 | 0
6
5
9 | |
| Degeneration, Cystic
Hyperplasia
Vacuolization Cytoplasmic | | | | 2 | 4 | 2 | 2 | 1 | 2 | 2 | | | | 2 | 2 | 2 | 1 | | | 2 | 3 | | 1 | | 4 | |
| Adrenal Medulla
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Parathyroid Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Pituitary Gland
Angiectasis
Hemorrhage
Pigmentation
Pars Distalis, Cyst
Pars Distalis, Hyperplasia
Pars Distalis, Hypertrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Thyroid Gland
Ultimobranchial Cyst
C-cell, Hyperplasia
Follicular Cell, Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
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| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Sertoliform | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bilateral, Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bursa, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Granulosa Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Interstitial Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oviduct | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vagina | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

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Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
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0 |
| Epithelium, Mucification | 3 | 4 | 4 | 4 | 2 | 3 | 2 | 3 | 4 | 2 | 4 | 3 | 3 | 3 | 4 | 3 | 4 | 2 | 3 | 4 | 4 | 3 | 4 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow Hypocellularity | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Lymph Node Lumbar, Degeneration, Cystic | + | + | | | | | | | | | | | | | | | | | | | + | + | | |
| Lymph Node Lumbar, Hyperplasia, Lymphoid | 4 | | | | | | | | | | | | | | | | | | | | 4 | 3 | | |
| Lymph Node Lumbar, Infiltration Cellular, Plasma Cell | 4 | | | | | | | | | | | | | | | | | | | | 4 | 4 | | |
| Lymph Node, Mandibular Degeneration, Cystic | | | + | | | | | | | | | | | | | | | | | | | + | | |
| Lymph Node, Mandibular Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | 4 | | |
| Lymph Node, Mandibular Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | | + | | | | | | | | | | | | | | | | | | | | | |
| Spleen Hematopoietic Cell Proliferation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Spleen Hematopoietic Cell Proliferation | 3 | 3 | | | 1 | 3 | 4 | 3 | 3 | 2 | | 3 | | 2 | 4 | 3 | | 3 | | 3 | 2 | 1 | 2 | 3 |
| Spleen Pigmentation | 3 | 2 | | 2 | | 1 | | | | 2 | 3 | 4 | | | 2 | | 1 | 2 | | 4 | 4 | | 1 | 1 |
| Thymus Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Thymus Cyst | 4 | 4 | | 4 | 4 | 3 | | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Mammary Gland Atypical Focus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

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 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

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 Bisphenol A
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----------------------|
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Hyperplasia, Lobular Mineralization 3 4 4 4 4 4 2 4 3 2 3 4 4 4 3 2 4 2
 Alveolus, Dilatation 2
 Duct, Dilatation 2

Skin + + + + +
 Epithelium, Foot, Hyperplasia 4 4 4
 Foot, Edema 4 4 4
 Foot, Fibrosis 4 4 4
 Foot, Inflammation, Chronic Active 4 4 4
 Foot, Necrosis 4 4 4
 Foot, Ulcer 4 2 4
 Subcutaneous Tissue, Fibrosis 3

MUSCULOSKELETAL SYSTEM

Bone, Femur +

NERVOUS SYSTEM

Brain, Brain Stem +
 Compression 2 1 3 3 1 4 4
 Hemorrhage 4
 Brain, Cerebellum +
 Brain, Cerebrum +
 Ventricle, Dilatation 2 1 1
 Nerve Trigeminal +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
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| | |
|---|---|
| Axon, Degeneration | 1 |
| Peripheral Nerve, Sciatic | + |
| Peripheral Nerve, Tibial | + |
| Spinal Cord, Cervical
Axon, Degeneration | + |
| Spinal Cord, Lumbar
Axon, Degeneration | 2 |
| Spinal Cord, Thoracic
Axon, Degeneration | + |

RESPIRATORY SYSTEM

| | |
|---|-------------------------------------|
| Lung | + + + + + + + + + + + + + + + + + + |
| Congestion | |
| Foreign Body | |
| Infiltration Cellular, Histiocyte | 2 |
| Inflammation, Chronic Active | |
| Metaplasia, Osseous | 1 |
| Nose | + + + + + + + + + + + + + + + + |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 1 2 3 2 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | |

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 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
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RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|----|-----|-----|---|---|---|---|-----|---|--|--|----|-----|--|--|--|--|--|--|--|--|----|-----|--|--|--|--|--|--|--|--|--|--|----|-----|
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| Hepatocyte, Necrosis | 2 | | 1 | | | | | | | | | | 1 | | | | | | | | | 3 | 1.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | + | 3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 3.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | | | | | | | | | | | | | | | | | | | | | | | | | + | 49 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | X | 2 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | 2 | 1 | 1 | | 2 | 1 | | 1 | | 2 | 2 | 3 | 1 | | 1 | 1 | 1 | | 2 | 1 | | 2 | | | 32 | 1.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lipomatosis | 3 | | | 2 | 2 | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 6 | 2.7 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | 1 | | 1 | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1 | | 1 | 1 | | | | | | | | | | | | | 13 | 1.1 | | | | | | | | | | | | |
| Acinus, Degeneration | 3 | 1 | 1 | | 2 | 2 | | | | 2 | 3 | 3 | 1 | | 1 | 1 | 1 | 2 | 3 | 1 | | 4 | 3 | | | 34 | 2.3 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | | | | | | | | | | | | | | | | | | | | | | | | + | 38 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1 | 2.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | | | | | | | | | | | | | | | | | | | | | | | | | + | 36 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | | | | X | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | | | | | | | | | | | | | | | | | | | | | | | | | + | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | | | | | | | | | | | | | | | | | | | | | | | | | + | 50 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiomyopathy | 2 | 1 | 1 | | 1 | 1 | 1 | 2 | | 1 | 1 | | | | | | | | | | | | | | | 1 | 1 | 2 | 2 | 1 | 1 | | 1 | | | 37 | 1.5 | | | | | | | | | | | | | | | | | | | | | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | | | | | | | | | | | | | | | | | | | | | | | | | + | 49 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2 | | | | | 2 | | | | | | | | | | | | | | | 2 | 3 | | | | | | | | | | | 10 | 2.5 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--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| | 07255 | 07268 | 07281 | 07296 | 07303 | 07317 | 07325 | 07332 | 07340 | 07348 | 07356 | 07364 | 07372 | 07380 | 07388 | 07396 | 07404 | 07412 | 07420 | 07428 | | 07436 | 07444 | 07452 | 07460 | 07468 | 07476 | 07484 | 07492 | 07500 | 07508 | 07516 | 07524 | 07532 | 07540 | 07548 | 07556 | 07564 | 07572 | 07580 | 07588 | 07596 | 07604 | 07612 | 07620 | 07628 | 07636 | 07644 | 07652 | 07660 | 07668 | 07676 | 07684 | 07692 | 07700 | 07708 | 07716 | 07724 | 07732 | 07740 | 07748 | 07756 | 07764 | 07772 | 07780 | 07788 | 07796 | 07804 | 07812 | 07820 | 07828 | 07836 | 07844 | 07852 | 07860 | 07868 | 07876 | 07884 | 07892 | 07900 | 07908 | 07916 | 07924 | 07932 | 07940 | 07948 | 07956 | 07964 | 07972 | 07980 | 07988 | 07996 | 08004 | 08012 | 08020 | 08028 | 08036 | 08044 | 08052 | 08060 | 08068 | 08076 | 08084 | 08092 | 08100 | 08108 | 08116 | 08124 | 08132 | 08140 | 08148 | 08156 | 08164 | 08172 | 08180 | 08188 | 08196 | 08204 | 08212 | 08220 | 08228 | 08236 | 08244 | 08252 | 08260 | 08268 | 08276 | 08284 | 08292 | 08300 | 08308 | 08316 | 08324 | 08332 | 08340 | 08348 | 08356 | 08364 | 08372 | 08380 | 08388 | 08396 | 08404 | 08412 | 08420 | 08428 | 08436 | 08444 | 08452 | 08460 | 08468 | 08476 | 08484 | 08492 | 08500 | 08508 | 08516 | 08524 | 08532 | 08540 | 08548 | 08556 | 08564 | 08572 | 08580 | 08588 | 08596 | 08604 | 08612 | 08620 | 08628 | 08636 | 08644 | 08652 | 08660 | 08668 | 08676 | 08684 | 08692 | 08700 | 08708 | 08716 | 08724 | 08732 | 08740 | 08748 | 08756 | 08764 | 08772 | 08780 | 08788 | 08796 | 08804 | 08812 | 08820 | 08828 | 08836 | 08844 | 08852 | 08860 | 08868 | 08876 | 08884 | 08892 | 08900 | 08908 | 08916 | 08924 | 08932 | 08940 | 08948 | 08956 | 08964 | 08972 | 08980 | 08988 | 08996 | 09004 | 09012 | 09020 | 09028 | 09036 | 09044 | 09052 | 09060 | 09068 | 09076 | 09084 | 09092 | 09100 | 09108 | 09116 | 09124 | 09132 | 09140 | 09148 | 09156 | 09164 | 09172 | 09180 | 09188 | 09196 | 09204 | 09212 | 09220 | 09228 | 09236 | 09244 | 09252 | 09260 | 09268 | 09276 | 09284 | 09292 | 09300 | 09308 | 09316 | 09324 | 09332 | 09340 | 09348 | 09356 | 09364 | 09372 | 09380 | 09388 | 09396 | 09404 | 09412 | 09420 | 09428 | 09436 | 09444 | 09452 | 09460 | 09468 | 09476 | 09484 | 09492 | 09500 | 09508 | 09516 | 09524 | 09532 | 09540 | 09548 | 09556 | 09564 | 09572 | 09580 | 09588 | 09596 | 09604 | 09612 | 09620 | 09628 | 09636 | 09644 | 09652 | 09660 | 09668 | 09676 | 09684 | 09692 | 09700 | 09708 | 09716 | 09724 | 09732 | 09740 | 09748 | 09756 | 09764 | 09772 | 09780 | 09788 | 09796 | 09804 | 09812 | 09820 | 09828 | 09836 | 09844 | 09852 | 09860 | 09868 | 09876 | 09884 | 09892 | 09900 | 09908 | 09916 | 09924 | 09932 | 09940 | 09948 | 09956 | 09964 | 09972 | 09980 | 09988 | 09996 | 10004 | 10012 | 10020 | 10028 | 10036 | 10044 | 10052 | 10060 | 10068 | 10076 | 10084 | 10092 | 10100 | 10108 | 10116 | 10124 | 10132 | 10140 | 10148 | 10156 | 10164 | 10172 | 10180 | 10188 | 10196 | 10204 | 10212 | 10220 | 10228 | 10236 | 10244 | 10252 | 10260 | 10268 | 10276 | 10284 | 10292 | 10300 | 10308 | 10316 | 10324 | 10332 | 10340 | 10348 | 10356 | 10364 | 10372 | 10380 | 10388 | 10396 | 10404 | 10412 | 10420 | 10428 | 10436 | 10444 | 10452 | 10460 | 10468 | 10476 | 10484 | 10492 | 10500 | 10508 | 10516 | 10524 | 10532 | 10540 | 10548 | 10556 | 10564 | 10572 | 10580 | 10588 | 10596 | 10604 | 10612 | 10620 | 10628 | 10636 | 10644 | 10652 | 10660 | 10668 | 10676 | 10684 | 10692 | 10700 | 10708 | 10716 | 10724 | 10732 | 10740 | 10748 | 10756 | 10764 | 10772 | 10780 | 10788 | 10796 | 10804 | 10812 | 10820 | 10828 | 10836 | 10844 | 10852 | 10860 | 10868 | 10876 | 10884 | 10892 | 10900 | 10908 | 10916 | 10924 | 10932 | 10940 | 10948 | 10956 | 10964 | 10972 | 10980 | 10988 | 10996 | 11004 | 11012 | 11020 | 11028 | 11036 | 11044 | 11052 | 11060 | 11068 | 11076 | 11084 | 11092 | 11100 | 11108 | 11116 | 11124 | 11132 | 11140 | 11148 | 11156 | 11164 | 11172 | 11180 | 11188 | 11196 | 11204 | 11212 | 11220 | 11228 | 11236 | 11244 | 11252 | 11260 | 11268 | 11276 | 11284 | 11292 | 11300 | 11308 | 11316 | 11324 | 11332 | 11340 | 11348 | 11356 | 11364 | 11372 | 11380 | 11388 | 11396 | 11404 | 11412 | 11420 | 11428 | 11436 | 11444 | 11452 | 11460 | 11468 | 11476 | 11484 | 11492 | 11500 | 11508 | 11516 | 11524 | 11532 | 11540 | 11548 | 11556 | 11564 | 11572 | 11580 | 11588 | 11596 | 11604 | 11612 | 11620 | 11628 | 11636 | 11644 | 11652 | 11660 | 11668 | 11676 | 11684 | 11692 | 11700 | 11708 | 11716 | 11724 | 11732 | 11740 | 11748 | 11756 | 11764 | 11772 | 11780 | 11788 | 11796 | 11804 | 11812 | 11820 | 11828 | 11836 | 11844 | 11852 | 11860 | 11868 | 11876 | 11884 | 11892 | 11900 | 11908 | 11916 | 11924 | 11932 | 11940 | 11948 | 11956 | 11964 | 11972 | 11980 | 11988 | 11996 | 12004 | 12012 | 12020 | 12028 | 12036 | 12044 | 12052 | 12060 | 12068 | 12076 | 12084 | 12092 | 12100 | 12108 | 12116 | 12124 | 12132 | 12140 | 12148 | 12156 | 12164 | 12172 | 12180 | 12188 | 12196 | 12204 | 12212 | 12220 | 12228 | 12236 | 12244 | 12252 | 12260 | 12268 | 12276 | 12284 | 12292 | 12300 | 12308 | 12316 | 12324 | 12332 | 12340 | 12348 | 12356 | 12364 | 12372 | 12380 | 12388 | 12396 | 12404 | 12412 | 12420 | 12428 | 12436 | 12444 | 12452 | 12460 | 12468 | 12476 | 12484 | 12492 | 12500 | 12508 | 12516 | 12524 | 12532 | 12540 | 12548 | 12556 | 12564 | 12572 | 12580 | 12588 | 12596 | 12604 | 12612 | 12620 | 12628 | 12636 | 12644 | 12652 | 12660 | 12668 | 12676 | 12684 | 12692 | 12700 | 12708 | 12716 | 12724 | 12732 | 12740 | 12748 | 12756 | 12764 | 12772 | 12780 | 12788 | 12796 | 12804 | 12812 | 12820 | 12828 | 12836 | 12844 | 12852 | 12860 | 12868 | 12876 | 12884 | 12892 | 12900 | 12908 | 12916 | 12924 | 12932 | 12940 | 12948 | 12956 | 12964 | 12972 | 12980 | 12988 | 12996 | 13004 | 13012 | 13020 | 13028 | 13036 | 13044 | 13052 | 13060 | 13068 | 13076 | 13084 | 13092 | 13100 | 13108 | 13116 | 13124 | 13132 | 13140 | 13148 | 13156 | 13164 | 13172 | 13180 | 13188 | 13196 | 13204 | 13212 | 13220 | 13228 | 13236 | 13244 | 13252 | 13260 | 13268 | 13276 | 13284 | 13292 | 13300 | 13308 | 13316 | 13324 | 13332 | 13340 | 13348 | 13356 | 13364 | 13372 | 13380 | 13388 | 13396 | 13404 | 13412 | 13420 | 13428 | 13436 | 13444 | 13452 | 13460 | 13468 | 13476 | 13484 | 13492 | 13500 | 13508 | 13516 | 13524 | 13532 | 13540 | 13548 | 13556 | 13564 | 13572 | 13580 | 13588 | 13596 | 13604 | 13612 | 13620 | 13628 | 13636 | 13644 | 13652 | 13660 | 13668 | 13676 | 13684 | 13692 | 13700 | 13708 | 13716 | 13724 | 13732 | 13740 | 13748 | 13756 | 13764 | 13772 | 13780 | 13788 | 13796 | 13804 | 13812 | 13820 | 13828 | 13836 | 13844 | 13852 | 13860 | 13868 | 13876 | 13884 | 13892 | 13900 | 13908 | 13916 | 13924 | 13932 | 13940 | 13948 | 13956 | 13964 | 13972 | 13980 | 13988 | 13996 | 14004 | 14012 | 14020 | 14028 | 14036 | 14044 | 14052 | 14060 | 14068 | 14076 | 14084 | 14092 | 14100 | 14108 | 14116 | 14124 | 14132 | 14140 | 14148 | 14156 | 14164 | 14172 | 14180 | 14188 | 14196 | 14204 | 14212 | 14220 | 14228 | 14236 | 14244 | 14252 | 14260 | 14268 | 14276 | 14284 | 14292 | 14300 | 14308 | 14316 | 14324 | 14332 | 14340 | 14348 | 14356 | 14364 | 14372 | 14380 | 14388 | 14396 | 14404 | 14412 | 14420 | 14428 | 14436 | 14444 | 14452 | 14460 | 14468 | 14476 | 14484 | 14492 | 14500 | 14508 | 14516 | 14524 | 14532 | 14540 | 14548 | 14556 | 14564 | 14572 | 14580 | 14588 | 14596 | 14604 | 14612 | 14620 | 14628 | 14636 | 14644 | 14652 | 14660 | 14668 | 14676 | 14684 | 14692 | 14700 | 14708 | 14716 | 14724 | 14732 | 14740 | 14748 | 14756 | 14764 | 14772 | 14780 | 14788 | 14796 | 14804 | 14812 | 14820 | 14828 | 14836 | 14844 | 14852 | 14860 | 14868 | 14876 | 14884 | 14892 | 14900 | 14908 | 14916 | 14924 | 14932 | 14940 | 14948 | 14956 | 14964 | 14972 | 14980 | 14988 | 14996 | 15004 | 15012 | 15020 | 15028 | 15036 | 15044 | 15052 | 15060 | 15068 | 15076 | 15084 | 15092 | 15100 | 15108 | 15116 | 15124 | 15132 | 15140 | 15148 | 15156 | 15164 | 15172 | 15180 | 15188 | 15196 | 15204 | 15212 | 15220 | 15228 | 15236 | 15244 | 15252 | 15260 | 15268 | 15276 | 15284 | 15292 | 15300 | 15308 | 15316 | 15324 | 15332 | 15340 | 15348 | 15356 | 15364 | 15372 | 15380 | 15388 | 15396 | 15404 | 15412 | 15420 | 15428 | 15436 | 15444 | 15452 | 15460 | 15468 | 15476 | 15484 | 15492 | 15500 | 15508 | 15516 | 15524 | 15532 | 15540 | 15548 | 15556 | 15564 | 15572 | 15580 | 15588 | 15596 | 15604 | 15612 | 15620 | 15628 | 15636 | 15644 | 15652 | 15660 | 15668 | 15676 | 15684 | 15692 | 15700 | 15708 | 15716 | 15724 | 15732 | 15740 | 15748 | 15756 | 15764 | 15772 | 15780 | 15788 | 15796 | 15804 | 15812 | 15820 | 15828 | 15836 | 15844 | 15852 | 15860 | 15868 | 15876 | 15884 | 15892 | 15900 | 15908 | 15916 | 15924 | 15932 | 15940 | 15948 | 15956 | 15964 | 15972 | 15980 | 15988 | 15996 | 16004 | 16012 | 16020 | 16028 | 16036 | 16044 | 16052 | 16060 | 16068 | 16076 | 16084 | 16092 | 16100 | 16108 | 16116 | 16124 | 16132 | 16140 | 16148 | 16156 | 16164 | 16172 | 16180 | 16188 | 16196 | 16204 | 16212 | 16220 | 16228 | 16236 | 16244 | 16252 | 16260 | 16268 | 16276 | 16284 | 16292 | 16300 | 16308 | 16316 | 16324 | 16332 | 16340 | 16348 | 16356 | 16364 | 16372 | 16380 | 16388 | 16396 | 16404 | 16412 | 16420 | 16428 | 16436 | 16444 | 16452 | 16460 | 16468 | 16476 | 16484 | 16492 | 16500 | 16508 | 16516 | 16524 | 16532 | 16540 | 16548 | 16556 | 16564 | 16572 | 16580 | 16588 | 16596 | 16604 | 16612 | 16620 | 16628 | 16636 | 16644 | 16652 | 16660 |

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|---|-------------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|----------|-----|
| | 075 | 054 | 066 | 057 | 066 | 056 | 066 | 055 | 066 | 056 | 066 | 055 | 066 | 055 | 066 | 055 | 066 | 055 | 066 | 055 | 066 | 055 | 066 | 055 | 066 | | |
| ANIMAL ID | 057 | 058 | 058 | 058 | 058 | 057 | 057 | 057 | 057 | 057 | 057 | 057 | 057 | 057 | 057 | 059 | 059 | 059 | 059 | 059 | 059 | 059 | 059 | 059 | 059 | | |
| Hyperplasia, Lobular Mineralization | 3 | 4 | | 3 | 3 | 4 | | 2 | 2 | 3 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 4 | | 4 | 4 | 2 | 2 | 4 | 3 | 40 | 3.3 |
| Alveolus, Dilatation | | | | | | | | | | | | | | | 2 | | | | | | | | 2 | | | 4 | 2.0 |
| Duct, Dilatation | | | | | | | | | | | | | | | 2 | | | | | | | | 2 | | | 5 | 2.0 |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | 8 | |
| Epithelium, Foot, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 4.0 |
| Foot, Edema | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 4.0 |
| Foot, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 4.0 |
| Foot, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | 5 | 4.0 |
| Foot, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 4.0 |
| Foot, Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 3.5 |
| Subcutaneous Tissue, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|---|-----|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Compression | | | | | | | | | | | | | 4 | 2 | | 3 | | | | | | | 3 | 3 | 2 | 14 | 2.6 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Ventricle, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 5 | 1.2 |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2.5 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|---|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----------|---|---|---|---|---|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | 0 | | | | |
| ANIMAL ID | 7 | 5 | 4 | 6 | 5 | 7 | 6 | 6 | 5 | 6 | 5 | 7 | 6 | 5 | 4 | 7 | 4 | 7 | 4 | 7 | 6 | 5 | 4 | 4 | 4 | 4 |
| | 2 | 6 | 8 | 1 | 6 | 0 | 0 | 2 | 9 | 1 | 8 | 2 | 6 | 8 | 1 | 2 | 4 | 2 | 7 | 9 | 9 | 1 | 7 | 2 | 7 | 0 |
| | 5 | 2 | 5 | 6 | 2 | 3 | 5 | 5 | 4 | 6 | 2 | 7 | 1 | 9 | 2 | 4 | 7 | 9 | 9 | 4 | 4 | 4 | 8 | 5 | 0 | 1 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 7 | 8 | 8 | 8 | 8 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| | 9 | 0 | 0 | 1 | 1 | 0 | 0 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 8 |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 |

Respiratory Epithelium, Hyperplasia, Goblet Cell 2 1 2.0

Trachea Infiltration Cellular, Lymphocyte + + + + + + + + + + + + A + + + + + + 36 1 3.0

SPECIAL SENSES SYSTEM

Zymbal's Gland Inflammation, Suppurative Duct, Dilatation + 4 4 1 1 4.0 1 4.0

URINARY SYSTEM

Kidney + 50 2 4.0
 Accumulation, Hyaline Droplet 5 1.2
 Casts Protein 1 1.0
 Infiltration Cellular, Lymphocyte 1 1.0
 Infiltration Cellular, Mononuclear Cell 1 1.0
 Infiltration Cellular, Polymorphonuclear 1 1.0
 Mineralization 1 1 2 1 1 1 1 4 2 1 4 1 1 1 2 3 2 22 1.4
 Nephropathy 1 2 1 1 1 1 4 2 4 1 1 1 3 1 1 3 1 25 1.7
 Cortex, Cyst X X X 10
 Pelvis, Dilatation 1 4.0
 Renal Tubule, Cyst X X 15
 Transitional Epithelium, Hyperplasia 1 1 1 6 1.0

Urinary Bladder Lumen, Dilatation 1 1 4.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|-------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | 0529 | 0571 | 0613 | 0665 | 0747 | 0779 | 0779 | 0559 | 0778 | 0778 | 0541 | 0665 | 0768 | 0661 | 0788 | 0370 | 0728 | 0664 | 0653 | 0569 | 0662 | 0492 | 0445 | 0459 | females
(cont...) | |
| | ANIMAL ID | 01611 | 01666 | 01622 | 01633 | 01644 | 01632 | 01642 | 01651 | 01657 | 01677 | 01688 | 01699 | 01677 | 01699 | 01681 | 01622 | 01611 | 01611 | 01633 | 01634 | 01641 | 01622 | 01655 | 01655 | | 01699 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Large, Colon | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Intestine Small, Ileum | + | + | + | + | + | + | + | A | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | X | | X | X | | | X | X | X | X | | X | X | | | X | | X | X | | | | X | | X | |
| Clear Cell Focus | | | | | | | | X | | | X | | | | | | | | X | | X | | | | | | |
| Degeneration, Cystic | | | | | 1 | | | | | | | | | 1 | | | | | | | | | | | | 1 | |
| Fatty Change | 2 | | | | | | | 1 | | | 3 | | | 2 | | | 2 | 2 | | | | 3 | | | 4 | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Mononuclear Cell | 1 | | | | 1 | | | 2 | | 2 | 2 | 1 | 1 | 1 | | 1 | 1 | | 1 | 2 | 1 | 1 | 1 | 1 | 1 | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | 2 | | | | | | | |
| Mixed Cell Focus | | | | | | | | X | | | | | | | | | | | | | | | | | | | |
| Tension Lipidosis | | | | | | | | | | 2 | 2 | | | | | | | | | | | | | | 4 | | |
| Vacuolization Cytoplasmic | | 2 | 1 | 2 | | | | | 2 | | 2 | | 1 | | 1 | | 2 | | | | 1 | 1 | | | 2 | | |
| Bile Duct, Hyperplasia | 2 | | | | | 1 | | 1 | | 2 | 3 | | 1 | 2 | | 1 | | | | 3 | | | | | 2 | | |
| Biliary Tract, Fibrosis | | | | | | | | | | 1 | 2 | | 1 | | | | | | | 1 | | | | | | | |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | 2 | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | | | + |
| Oral Mucosa | | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
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Experiment Number: 10034 - 04
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 Bisphenol A
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
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| | 0529 | 0571 | 0613 | 0665 | 0707 | 0749 | 0791 | 0833 | 0875 | 0917 | 0959 | 1001 | 1043 | 1085 | 1127 | 1169 | 1211 | 1253 | 1295 | 1337 | | | 1379 | 1421 | 1463 | 1505 | 1547 | 1589 | 1631 | 1673 | 1715 | 1757 | 1799 | 1841 | 1883 | 1925 | 1967 | 2009 | 2051 | 2093 | 2135 | 2177 | 2219 | 2261 | 2303 | 2345 | 2387 | 2429 | 2471 | 2513 | 2555 | 2597 | 2639 | 2681 | 2723 | 2765 | 2807 | 2849 | 2891 | 2933 | 2975 | 3017 | 3059 | 3101 | 3143 | 3185 | 3227 | 3269 | 3311 | 3353 | 3395 | 3437 | 3479 | 3521 | 3563 | 3605 | 3647 | 3689 | 3731 | 3773 | 3815 | 3857 | 3899 | 3941 | 3983 | 4025 | 4067 | 4109 | 4151 | 4193 | 4235 | 4277 | 4319 | 4361 | 4403 | 4445 | 4487 | 4529 | 4571 | 4613 | 4655 | 4697 | 4739 | 4781 | 4823 | 4865 | 4907 | 4949 | 4991 | 5033 | 5075 | 5117 | 5159 | 5201 | 5243 | 5285 | 5327 | 5369 | 5411 | 5453 | 5495 | 5537 | 5579 | 5621 | 5663 | 5705 | 5747 | 5789 | 5831 | 5873 | 5915 | 5957 | 5999 | 6041 | 6083 | 6125 | 6167 | 6209 | 6251 | 6293 | 6335 | 6377 | 6419 | 6461 | 6503 | 6545 | 6587 | 6629 | 6671 | 6713 | 6755 | 6797 | 6839 | 6881 | 6923 | 6965 | 7007 | 7049 | 7091 | 7133 | 7175 | 7217 | 7259 | 7301 | 7343 | 7385 | 7427 | 7469 | 7511 | 7553 | 7595 | 7637 | 7679 | 7721 | 7763 | 7805 | 7847 | 7889 | 7931 | 7973 | 8015 | 8057 | 8099 | 8141 | 8183 | 8225 | 8267 | 8309 | 8351 | 8393 | 8435 | 8477 | 8519 | 8561 | 8603 | 8645 | 8687 | 8729 | 8771 | 8813 | 8855 | 8897 | 8939 | 8981 | 9023 | 9065 | 9107 | 9149 | 9191 | 9233 | 9275 | 9317 | 9359 | 9401 | 9443 | 9485 | 9527 | 9569 | 9611 | 9653 | 9695 | 9737 | 9779 | 9821 | 9863 | 9905 | 9947 | 9989 | 10031 | 10073 | 10115 | 10157 | 10199 | 10241 | 10283 | 10325 | 10367 | 10409 | 10451 | 10493 | 10535 | 10577 | 10619 | 10661 | 10703 | 10745 | 10787 | 10829 | 10871 | 10913 | 10955 | 10997 | 11039 | 11081 | 11123 | 11165 | 11207 | 11249 | 11291 | 11333 | 11375 | 11417 | 11459 | 11501 | 11543 | 11585 | 11627 | 11669 | 11711 | 11753 | 11795 | 11837 | 11879 | 11921 | 11963 | 12005 | 12047 | 12089 | 12131 | 12173 | 12215 | 12257 | 12299 | 12341 | 12383 | 12425 | 12467 | 12509 | 12551 | 12593 | 12635 | 12677 | 12719 | 12761 | 12803 | 12845 | 12887 | 12929 | 12971 | 13013 | 13055 | 13097 | 13139 | 13181 | 13223 | 13265 | 13307 | 13349 | 13391 | 13433 | 13475 | 13517 | 13559 | 13601 | 13643 | 13685 | 13727 | 13769 | 13811 | 13853 | 13895 | 13937 | 13979 | 14021 | 14063 | 14105 | 14147 | 14189 | 14231 | 14273 | 14315 | 14357 | 14399 | 14441 | 14483 | 14525 | 14567 | 14609 | 14651 | 14693 | 14735 | 14777 | 14819 | 14861 | 14903 | 14945 | 14987 | 15029 | 15071 | 15113 | 15155 | 15197 | 15239 | 15281 | 15323 | 15365 | 15407 | 15449 | 15491 | 15533 | 15575 | 15617 | 15659 | 15701 | 15743 | 15785 | 15827 | 15869 | 15911 | 15953 | 15995 | 16037 | 16079 | 16121 | 16163 | 16205 | 16247 | 16289 | 16331 | 16373 | 16415 | 16457 | 16499 | 16541 | 16583 | 16625 | 16667 | 16709 | 16751 | 16793 | 16835 | 16877 | 16919 | 16961 | 17003 | 17045 | 17087 | 17129 | 17171 | 17213 | 17255 | 17297 | 17339 | 17381 | 17423 | 17465 | 17507 | 17549 | 17591 | 17633 | 17675 | 17717 | 17759 | 17801 | 17843 | 17885 | 17927 | 17969 | 18011 | 18053 | 18095 | 18137 | 18179 | 18221 | 18263 | 18305 | 18347 | 18389 | 18431 | 18473 | 18515 | 18557 | 18599 | 18641 | 18683 | 18725 | 18767 | 18809 | 18851 | 18893 | 18935 | 18977 | 19019 | 19061 | 19103 | 19145 | 19187 | 19229 | 19271 | 19313 | 19355 | 19397 | 19439 | 19481 | 19523 | 19565 | 19607 | 19649 | 19691 | 19733 | 19775 | 19817 | 19859 | 19901 | 19943 | 19985 | 20027 | 20069 | 20111 | 20153 | 20195 | 20237 | 20279 | 20321 | 20363 | 20405 | 20447 | 20489 | 20531 | 20573 | 20615 | 20657 | 20699 | 20741 | 20783 | 20825 | 20867 | 20909 | 20951 | 20993 | 21035 | 21077 | 21119 | 21161 | 21203 | 21245 | 21287 | 21329 | 21371 | 21413 | 21455 | 21497 | 21539 | 21581 | 21623 | 21665 | 21707 | 21749 | 21791 | 21833 | 21875 | 21917 | 21959 | 22001 | 22043 | 22085 | 22127 | 22169 | 22211 | 22253 | 22295 | 22337 | 22379 | 22421 | 22463 | 22505 | 22547 | 22589 | 22631 | 22673 | 22715 | 22757 | 22799 | 22841 | 22883 | 22925 | 22967 | 23009 | 23051 | 23093 | 23135 | 23177 | 23219 | 23261 | 23303 | 23345 | 23387 | 23429 | 23471 | 23513 | 23555 | 23597 | 23639 | 23681 | 23723 | 23765 | 23807 | 23849 | 23891 | 23933 | 23975 | 24017 | 24059 | 24101 | 24143 | 24185 | 24227 | 24269 | 24311 | 24353 | 24395 | 24437 | 24479 | 24521 | 24563 | 24605 | 24647 | 24689 | 24731 | 24773 | 24815 | 24857 | 24899 | 24941 | 24983 | 25025 | 25067 | 25109 | 25151 | 25193 | 25235 | 25277 | 25319 | 25361 | 25403 | 25445 | 25487 | 25529 | 25571 | 25613 | 25655 | 25697 | 25739 | 25781 | 25823 | 25865 | 25907 | 25949 | 25991 | 26033 | 26075 | 26117 | 26159 | 26201 | 26243 | 26285 | 26327 | 26369 | 26411 | 26453 | 26495 | 26537 | 26579 | 26621 | 26663 | 26705 | 26747 | 26789 | 26831 | 26873 | 26915 | 26957 | 27000 | 27042 | 27084 | 27126 | 27168 | 27210 | 27252 | 27294 | 27336 | 27378 | 27420 | 27462 | 27504 | 27546 | 27588 | 27630 | 27672 | 27714 | 27756 | 27798 | 27840 | 27882 | 27924 | 27966 | 28008 | 28050 | 28092 | 28134 | 28176 | 28218 | 28260 | 28302 | 28344 | 28386 | 28428 | 28470 | 28512 | 28554 | 28596 | 28638 | 28680 | 28722 | 28764 | 28806 | 28848 | 28890 | 28932 | 28974 | 29016 | 29058 | 29100 | 29142 | 29184 | 29226 | 29268 | 29310 | 29352 | 29394 | 29436 | 29478 | 29520 | 29562 | 29604 | 29646 | 29688 | 29730 | 29772 | 29814 | 29856 | 29898 | 29940 | 29982 | 30024 | 30066 | 30108 | 30150 | 30192 | 30234 | 30276 | 30318 | 30360 | 30402 | 30444 | 30486 | 30528 | 30570 | 30612 | 30654 | 30696 | 30738 | 30780 | 30822 | 30864 | 30906 | 30948 | 30990 | 31032 | 31074 | 31116 | 31158 | 31200 | 31242 | 31284 | 31326 | 31368 | 31410 | 31452 | 31494 | 31536 | 31578 | 31620 | 31662 | 31704 | 31746 | 31788 | 31830 | 31872 | 31914 | 31956 | 32000 | 32042 | 32084 | 32126 | 32168 | 32210 | 32252 | 32294 | 32336 | 32378 | 32420 | 32462 | 32504 | 32546 | 32588 | 32630 | 32672 | 32714 | 32756 | 32798 | 32840 | 32882 | 32924 | 32966 | 33008 | 33050 | 33092 | 33134 | 33176 | 33218 | 33260 | 33302 | 33344 | 33386 | 33428 | 33470 | 33512 | 33554 | 33596 | 33638 | 33680 | 33722 | 33764 | 33806 | 33848 | 33890 | 33932 | 33974 | 34016 | 34058 | 34100 | 34142 | 34184 | 34226 | 34268 | 34310 | 34352 | 34394 | 34436 | 34478 | 34520 | 34562 | 34604 | 34646 | 34688 | 34730 | 34772 | 34814 | 34856 | 34898 | 34940 | 34982 | 35024 | 35066 | 35108 | 35150 | 35192 | 35234 | 35276 | 35318 | 35360 | 35402 | 35444 | 35486 | 35528 | 35570 | 35612 | 35654 | 35696 | 35738 | 35780 | 35822 | 35864 | 35906 | 35948 | 35990 | 36032 | 36074 | 36116 | 36158 | 36200 | 36242 | 36284 | 36326 | 36368 | 36410 | 36452 | 36494 | 36536 | 36578 | 36620 | 36662 | 36704 | 36746 | 36788 | 36830 | 36872 | 36914 | 36956 | 37000 | 37042 | 37084 | 37126 | 37168 | 37210 | 37252 | 37294 | 37336 | 37378 | 37420 | 37462 | 37504 | 37546 | 37588 | 37630 | 37672 | 37714 | 37756 | 37798 | 37840 | 37882 | 37924 | 37966 | 38008 | 38050 | 38092 | 38134 | 38176 | 38218 | 38260 | 38302 | 38344 | 38386 | 38428 | 38470 | 38512 | 38554 | 38596 | 38638 | 38680 | 38722 | 38764 | 38806 | 38848 | 38890 | 38932 | 38974 | 39016 | 39058 | 39100 | 39142 | 39184 | 39226 | 39268 | 39310 | 39352 | 39394 | 39436 | 39478 | 39520 | 39562 | 39604 | 39646 | 39688 | 39730 | 39772 | 39814 | 39856 | 39898 | 39940 | 39982 | 40024 | 40066 | 40108 | 40150 | 40192 | 40234 | 40276 | 40318 | 40360 | 40402 | 40444 | 40486 | 40528 | 40570 | 40612 | 40654 | 40696 | 40738 | 40780 | 40822 | 40864 | 40906 | 40948 | 40990 | 41032 | 41074 | 41116 | 41158 | 41200 | 41242 | 41284 | 41326 | 41368 | 41410 | 41452 | 41494 | 41536 | 41578 | 41620 | 41662 | 41704 | 41746 | 41788 | 41830 | 41872 | 41914 | 41956 | 42000 | 42042 | 42084 | 42126 | 42168 | 42210 | 42252 | 42294 | 42336 | 42378 | 42420 | 42462 | 42504 | 42546 | 42588 | 42630 | 42672 | 42714 | 42756 | 42798 | 42840 | 42882 | 42924 | 42966 | 43008 | 43050 | 43092 | 43134 | 43176 | 43218 | 43260 | 43302 | 43344 | 43386 | 43428 | 43470 | 43512 | 43554 | 43596 | 43638 | 43680 | 43722 | 43764 | 43806 | 43848 | 43890 | 43932 | 43974 | 44016 | 44058 | 44100 | 44142 | 44184 | 44226 | 44268 | 44310 | 44352 | 44394 | 44436 | 44478 | 44520 | 44562 | 44604 | 44646 | 44688 | 44730 | 44772 | 44814 | 44856 | 44898 | 44940 | 44982 | 45024 | 45066 | 45108 | 45150 | 45192 | 45234 | 45276 | 45318 | 45360 | 45402 | 45444 | 45486 | 45528 | 45570 | 45612 | 45654 | 45696 | 45738 | 45780 | 45822 | 45864 | 45906 | 45948 | 45990 | 46032 | 46074 | 46116 | 46158 | 46200 | 46242 | 46284 | 46326 | 46368 | 46410 | 46452 | 46494 | 46536 | 46578 | 46620 | 46662 | 46704 | 46746 | 46788 | 46830 | 46872 | 46914 | 46956 | 47000 | 47042 | 47084 | 47126 | 47168 | 47210 | 47252 | 47294 | 47336 | 47378 | 47420 | 47462 | 47504 | 47546 | 47588 | 47630 | 47672 | 47714 | 47756 | 47798 | 47840 | 47882 | 47924 | 47966 | 48008 | 48050 | 48092 | 48134 | 48176 | 48218 | 48260 | 48302 | 48344 | 48386 | 48428 | 48470 | 48512 | 48554 | 48596 | 48638 | 48680 | 48722 | 48764 | 48806 | 48848 | 48890 | 48932 | 48974 | 49016 | 49058 | 49100 | 49142 | 49184 | 49226 | 49268 | 49310 | 49352 | 49394 | 49436 | 49478 | 49520 | 49562 | 49604 | 49646 | 49688 | 49730 | 49772 | 49814 | 49856 | 49898 | 49940 | 49982 | 50024 | 50066 | 50108 | 50150 | 50192 | 50234 | 50276 | 50318 | 50360 | 50402 | 50444 | 50486 | 50528 | 50570 | 50612 | 50654 | 50696 | 50738 | 50780 | 50822 | 50864 | 50906 | 50948 | 50990 | 51032 | 51074 | 51116 | 51158 | 51200 | 51242 | 51284 | 51326 | 51368 | 51410 | 51452 | 51494 | 51536 | 51578 | 51620 | 51662 |

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0529 | 0571 | 0613 | 0665 | 0707 | 0749 | 0791 | 0833 | 0875 | 0917 | 0959 | 1001 | 1043 | 1085 | 1127 | 1169 | 1211 | 1253 | 1295 | 1337 | 1379 | 1421 | 1463 | 1505 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0116 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 3 | 0217 | |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0318 | |
| | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 0419 | |
| | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 0520 | |

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| Adrenal Medulla
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 0621 | |
| Islets, Pancreatic
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 0722 | |
| Parathyroid Gland
Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | 0823 | |
| Pituitary Gland
Angiectasis | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 0924 | |
| Pigmentation | 2 | | | | | | 4 | | | | | | | | 3 | | | | | | | | | | 1025 | |
| Pars Distalis, Cyst | | | | X | | | | | | X | X | | | | | | | | | X | | | | X | 1126 | |
| Pars Distalis, Hyperplasia | | 3 | 4 | 4 | | 4 | | 1 | 2 | 3 | 3 | 4 | 4 | 4 | 2 | 1 | 4 | | 3 | 3 | 2 | 3 | 4 | 3 | 1227 | |
| Thyroid Gland
Ultimobranchial Cyst | + | + | + | + | + | + | + | A | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | 1328 | |
| C-cell, Hyperplasia | 2 | | 1 | | 2 | | 1 | 2 | | 1 | | 1 | 4 | | | | | | | | | 1 | 1 | | 1429 | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 2 | 3 | | 1530 | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|------|--|
| Clitoral Gland
Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1631 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | | | 1732 | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | 1833 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| | 0529 | 0571 | 0613 | 0645 | 0707 | 0749 | 0771 | 0859 | 0906 | 0928 | 0958 | 1005 | 1027 | 1057 | 1104 | 1126 | 1156 | 1203 | 1225 | 1255 | 1302 | 1324 | 1354 | 1376 | |
| ANIMAL ID | 0111 | 0112 | 0113 | 0114 | 0115 | 0116 | 0117 | 0118 | 0119 | 0120 | 0121 | 0122 | 0123 | 0124 | 0125 | 0126 | 0127 | 0128 | 0129 | 0130 | 0131 | 0132 | 0133 | 0134 | 0135 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | 3 | 2 | 2 | 2 | 2 | 4 | 2 | 3 | 2 | 3 | 2 | 2 | 3 | 2 | 2 | 2 | 3 | | 4 | 2 | 2 | 2 | 2 | 1 | 2 |
| Cyst | | | | | | | | X | | | | | | | | | | | | | | | | | |
| Hyperplasia, Sertoliform | | | | | | | | | | | | | | 2 | | | | | | 2 | | | | | 2 |
| Bilateral, Cyst | | | | | | | | | | | | | | | | | | | X | | | | | | |
| Bilateral, Follicle, Cyst | | | | | | | | | | | X | | X | | | | | | | | | | | | |
| Follicle, Cyst | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Granulosa Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Oviduct | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | 4 | | | | | | | | | | | | | | | |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Cyst | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Endometrium, Degeneration | | | | | | | | | | | | | | 3 | | | | | | | | | | | |
| Endometrium, Hyperplasia | | | 1 | | 1 | | 2 | 1 | | 2 | | 4 | 2 | | | 2 | | | | | | 1 | | 2 | |
| Endometrium, Hyperplasia, Cystic | 1 | 2 | | 2 | | 2 | | | | 2 | | | | | 2 | | | | | 2 | 2 | 2 | | 2 | 2 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stroma, Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | | | | | | | | | 4 | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | | | 2 | | | | | | | | | | 2 | | | 3 | | | | 4 | | | | | |
| Epithelium, Degeneration | | | 2 | | | | | | | | | | 2 | 4 | | 3 | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | 4 | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|------------------|------------------|------------------|
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4 | 0
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3 | 0
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2 |
| Epithelium, Mucification | 4 | 2 | | 2 | 4 | | 2 | 4 | | 2 | 3 | 3 | | 4 | 3 | | 3 | 2 | 4 | 2 | 4 | 4 | 4 | 3 | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | | | | |
| Hypocellularity | | | | | | | | | | | | | | | | | | | | | | | | |
| Myeloid Cell, Hyperplasia | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | |
| Iliac, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | |
| Iliac, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | |
| Iliac, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | 4 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Hyperplasia, Lymphoid | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | + | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | 4 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | | | | | | | | | | | | | | | | | | | | | | | | |
| Hematopoietic Cell Proliferation | + | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | 2 2 3 2 2 1 2 2 3 3 2 3 4 2 1 2 4 1 2 2 3 2 4 3 | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | + | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | 4 4 4 4 4 4 4 4 4 4 3 4 4 4 4 4 4 4 4 4 4 4 4 3 4 | | | | | | | | | | | | | | | | | | | | | | | |

INTEGUMENTARY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | |
|--|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|------------------|-----------|----------------------|------------------|------------------|------------------|
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5 | 0
5 | 0
5 |
| | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 |
| | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 3 | 3 | 4 | 4 | 5 |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|--|---|---|---|---|---|---|--|---|---|---|---|---|---|---|
| Lung | + | + | + | + | + | + | + | + | + | | + | + | + | + | + | + | | + | + | + | + | + | + | + |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Histiocyte | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|--|---|---|--|---|---|--|---|---|--|---|---|---|---|---|---|---|--|
| Nose | + | + | + | + | + | + | | + | + | | + | + | | + | + | | + | + | + | + | + | + | + | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | 4 | | | 2 | | | | | | | | 2 | | | | | | | | | | 3 | | |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | 2 | | | | | | | | | | 2 | | |
| Transitional Epithelium, Accumulation, Hyaline Droplet | 3 | | | | | | | | | | | | | | | | | | | | | | | |
| Upper Molar, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|---------|---|---|---|---|---|---|--|---|---|--|---|---|--|---|---|--|---|---|---|---|---|---|---|
| Trachea | + | + | + | + | + | + | | + | A | | + | + | | + | + | | + | + | + | + | + | + | + |
|---------|---|---|---|---|---|---|--|---|---|--|---|---|--|---|---|--|---|---|---|---|---|---|---|

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Casts Protein | | | | | | | | | | | | | | | | | | | | | | | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | 4 | 1 | | | 2 | | 1 | 2 | | | | 1 | 1 | | 1 | | 2 | 2 | 1 | | | 1 | 2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
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RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|----|
| | 07 | 05 | 06 | 04 | 04 | 04 | 05 | 07 | 05 | 06 | 05 | 05 | 06 | 07 | 07 | 05 | 07 | 06 | 06 | 07 | | 05 | 05 | 07 |
| ANIMAL ID | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | 05952 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|-----|
| Esophagus | + | | | | | | | | | | | | | | | | | | | | 35 | |
| Intestine Large, Colon | + | | | | | | | | | | | | | | | | | | | | 33 | |
| Intestine Small, Ileum | A | | | | | | | | | | | | | | | | | | | | 31 | |
| Liver | + | | | | | | | | | | | | | | | | | | | | 48 | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Basophilic Focus | X | | | | | | | | | | | | | | | | | | | | 25 | |
| Clear Cell Focus | X | | | | | | | | | | | | | | | | | | | | 9 | |
| Degeneration, Cystic | 1 | | | | | | | | | | | | | | | | | | | | 6 | 1.0 |
| Fatty Change | 3 | | | | | | | | | | | | | | | | | | | | 17 | 2.5 |
| Hematopoietic Cell Proliferation | 1 | | | | | | | | | | | | | | | | | | | | 3 | 1.3 |
| Hemorrhage | 3 | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | 1 | |
| Infiltration Cellular, Mononuclear Cell | 1 | | | | | | | | | | | | | | | | | | | | 33 | 1.2 |
| Inflammation, Chronic Active | 1 | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | 1 | |
| Tension Lipidosis | 3 | | | | | | | | | | | | | | | | | | | | 5 | 2.8 |
| Vacuolization Cytoplasmic | 2 | | | | | | | | | | | | | | | | | | | | 15 | 1.6 |
| Bile Duct, Hyperplasia | 1 | | | | | | | | | | | | | | | | | | | | 18 | 1.8 |
| Biliary Tract, Fibrosis | 1 | | | | | | | | | | | | | | | | | | | | 8 | 1.3 |
| Hepatocyte, Necrosis | 1 | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | 1 | |
| Oral Mucosa | + | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 07 | 05 | 06 | 04 | 04 | 04 | 05 | 07 | 05 | 06 | 05 | 05 | 06 | 07 | 07 | 05 | 07 | 06 | 06 | 07 | | 05 | 05 |
| ANIMAL ID | 05952 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 | 05996 |
| Pancreas | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Infiltration Cellular, Lymphocyte
Inflammation, Chronic Active | 1 | | 1 | 1 | 1 | | | 1 | | | 1 | 1 | 2 | | 3 | 1 | 1 | | 2 | 2 | | 1 | |
| Lipomatosis | | | | | | | | | | | | | | | | | | | 3 | | | | |
| Pigmentation
Acinus, Degeneration | | | | | 1 | 2 | 1 | | 3 | 1 | | 1 | 1 | 2 | 1 | 4 | 1 | | 1 | 2 | 2 | 1 | |
| | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | | + | + | + | + | + | + | | | + | + | + | + | + | | | + | | + | + | | + | + |
| Stomach, Glandular | | + | + | + | + | A | + | | | + | + | + | + | + | | | + | | + | + | | + | + |
| CARDIOVASCULAR SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Cardiomyopathy | 3 | 1 | 1 | 1 | | 1 | | 1 | 1 | | 1 | 1 | 1 | | 1 | | 2 | 1 | | 1 | 1 | | 2 |
| Polyarteritis | | | | | | | | 2 | | | | | | | | | | | | | | | |
| ENDOCRINE SYSTEM | | | | | | | | | | | | | | | | | | | | | | | |
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | 2 | | | | | | | | | | 2 | 2 | | | | | 2 | | | 2 | |
| Degeneration, Cystic | 3 | 2 | 4 | 2 | 2 | | 3 | 4 | | 2 | | 4 | 4 | | | | 4 | 3 | 2 | 2 | | 3 | 2 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia | | | 1 | | | | | | | | | | | | | | | | | | | | |
| Hypertrophy | | | | 1 | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | 2 | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

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BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-----|-----|-----|--|
| | 077 | 075 | 066 | 044 | 044 | 044 | 055 | 077 | 055 | 066 | 055 | 066 | 077 | 077 | 055 | 077 | 066 | 066 | 077 | 055 | | 055 | 077 | | | |
| ANIMAL ID | 05952 | 05991 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | 05999 | | | | |
| Adrenal Medulla Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 4 | 2.0 | |
| Islets, Pancreatic Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | 1 | 2.0 | |
| Parathyroid Gland Hyperplasia | + | + | + | + | + | + | + | + | 2 | + | + | + | + | + | + | + | + | + | + | + | 1 | 1 | 47 | 8 | 1.4 | |
| Pituitary Gland Angiectasis | 4 | | | | | | | | | | | | | | | | | | | | | | 48 | 8 | 3.5 | |
| Pituitary Gland Pigmentation | | | | | | 3 | | | | | | | 4 | | | | | 4 | | | | 4 | | 1 | 3.0 | |
| Pituitary Gland Pars Distalis, Cyst | | | | X | | X | | | | | X | X | | | | | X | | | | | | 10 | | | |
| Pituitary Gland Pars Distalis, Hyperplasia | | | | 3 | | 3 | 2 | 2 | 4 | 3 | 3 | 3 | | 4 | | | 3 | | 2 | | 4 | 3 | 34 | 3.1 | | |
| Thyroid Gland Ultimobranchial Cyst | | | | | | | A | | | | | | | | | | | | | | | | 45 | | 2 | |
| Thyroid Gland C-cell, Hyperplasia | | | | | | | | 1 | | | | 1 | | | | | | 2 | | | 1 | 2 | 1 | 17 | 1.5 | |
| Thyroid Gland Follicular Cell, Hyperplasia | 2 | | 2 | | | | | | | | | 2 | | 3 | | | 2 | | | | | | 7 | 2.3 | | |

GENERAL BODY SYSTEM

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|-----|-----|
| Clitoral Gland Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | 6 | 3 | 4.0 | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 6 | 3.7 |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 6 | 3.8 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

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M .. Missing tissue

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|
| | 0727 | 0754 | 0762 | 0744 | 0744 | 0744 | 0755 | 0777 | 0755 | 0766 | 0755 | 0766 | 0777 | 0777 | 0755 | 0777 | 0766 | 0766 | 0777 | 0755 | | 0755 | 0777 |
| ANIMAL ID | 0595 | 0599 | 0599 | 0599 | 0599 | 0578 | 0578 | 0578 | 0578 | 0578 | 0578 | 0578 | 0578 | 0578 | 0578 | 0578 | 0578 | 0578 | 0578 | 0578 | 0578 | 0578 | |
| Ovary | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | 3 | 3 | 2 | 4 | 2 | | 2 | 3 | 2 | 2 | 3 | 3 | 2 | 4 | 2 | 2 | 2 | 4 | 2 | 3 | 2 | 2 | 4 |
| Cyst | | | | | | | X | X | | | | | | | | | | X | X | | | | |
| Hyperplasia, Sertoliform | | | | | | | | | 1 | | | | | | 1 | | | | | | | | |
| Bilateral, Cyst | | | | | | | | | | | | X | | | | | | | | | | | |
| Bilateral, Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | |
| Follicle, Cyst | X | | | | | | | | | | | | | | | | | | | | | | |
| Granulosa Cell, Hyperplasia | | | | | | | | | | | 2 | | | | | | | | | | | | |
| Oviduct | + | + | + | + | + | A | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | 3 | | | | | | | | | | 3 | | | | | | | 3 | | | | |
| Dilatation | | | 3 | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Squamous | | | | | | | | | | | | | 2 | | | | | 1 | | | | | |
| Endometrium, Cyst | | X | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Degeneration | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia | 1 | | | | 2 | | | | | | 2 | | | | | 1 | 1 | | | 2 | 2 | | |
| Endometrium, Hyperplasia, Cystic | | | 3 | | | | 3 | 3 | 3 | 2 | | 2 | 3 | 2 | | | 4 | | 2 | | | 2 | |
| Lumen, Dilatation | | | | 4 | | | | | | | | | | | | | | | | | | 4 | |
| Stroma, Fibrosis | | | | | | | | | | | 4 | | | | | | | | | | | | |
| Vagina | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | | | | | | | | | | | | | | | 3 | | | | |
| Infiltration Cellular, Polymorphonuclear | 4 | | | | | | | | | | | | | | | | | | | | | 4 | |
| Epithelium, Degeneration | | | | | | | | | | | | | | | | | | | | | | 4 | |
| Epithelium, Hyperplasia | | | | 2 | | | | | | | | | 3 | | | | | | | | | | |

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 Bisphenol A
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---------------|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | 0 | | |
| | 7 | 5 | 6 | 4 | 4 | 4 | 5 | 7 | 5 | 6 | 5 | 5 | 6 | 7 | 7 | 5 | 7 | 6 | 6 | 7 | 5 | 5 | 7 | | |
| | 2 | 7 | 5 | 4 | 8 | 8 | 8 | 2 | 8 | 2 | 4 | 1 | 6 | 2 | 2 | 4 | 2 | 5 | 2 | 2 | 7 | 0 | 2 | | |
| | 7 | 4 | 2 | 3 | 4 | 9 | 2 | 6 | 8 | 9 | 0 | 1 | 0 | 8 | 7 | 1 | 8 | 2 | 4 | 7 | 4 | 6 | 8 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | |
| | 5 | 5 | 5 | 5 | 5 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 7 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | | |
| | 9 | 9 | 9 | 9 | 9 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | | |
| | 5 | 6 | 6 | 7 | 7 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | | |
| | * TOTALS | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Mucification | 4 | 4 | 4 | | 4 | | 3 | 3 | 3 | 4 | 2 | 4 | 4 | 2 | 4 | 4 | 2 | 4 | | 4 | 4 | 3 | | 37 3.3 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---------------|---------------|--|
| Bone Marrow | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 47 | | | |
| Hypocellularity | | 3 | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | |
| Lymph Node | | | | + | | | | | | | | | | | | | | | | | | | | 3 | | | |
| Iliac, Degeneration, Cystic | | | | 4 | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | |
| Iliac, Hyperplasia, Lymphoid | | | | 3 | | | | | | | | | | | | | | | | | | | | | 1 3.0 | | |
| Iliac, Infiltration Cellular, Plasma Cell | | | | 4 | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 2 4.0 | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | |
| Renal, Hyperplasia, Lymphoid | | | | 2 | | | | | | | | | | | | | | | | | | | | | 1 2.0 | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | 4 | | | | | | | | | | | | | | | | | | | | | 1 4.0 | | |
| Lymph Node, Mandibular | | | | + | | | | | | | | | | | | | | | | | | | | 3 | | | |
| Hyperplasia, Lymphoid | | | | 3 | | | | | | | | | | | | | | | | | | | | | 2 3.5 | | |
| Infiltration Cellular, Plasma Cell | | | | 4 | | | | | | | | | | | | | | | | | | | | | 3 4.0 | | |
| Spleen | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 47 | | | |
| Hematopoietic Cell Proliferation | 1 | | 2 | 2 | 4 | | 2 | 1 | | 2 | 4 | | | 1 | | 3 | | 1 | 2 | 2 | 3 | | | | 29 2.3 | | |
| Pigmentation | | 4 | 2 | | 2 | | | 2 | 1 | 2 | | 4 | 1 | 2 | 3 | 2 | 2 | 2 | 1 | 2 | | 1 | 4 | | | 38 2.2 | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | 48 | | | |
| Atrophy | 4 | 4 | 4 | 3 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | | 47 3.9 | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | |

INTEGUMENTARY SYSTEM

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 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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Experiment Number: 10034 - 04
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 Bisphenol A
 CAS Number: 80-05-7
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 07 | 05 | 06 | 04 | 04 | 04 | 05 | 07 | 05 | 06 | 05 | 05 | 06 | 07 | 07 | 05 | 07 | 06 | 06 | 07 | | 05 | 05 |
| ANIMAL ID | 05952 | 05991 | 05999 | 05999 | 05999 | 05788 | 05778 | 05777 | 05777 | 05777 | 05777 | 05777 | 05777 | 05777 | 05777 | 05777 | 05777 | 05777 | 05777 | 05777 | 05777 | 05777 | 05777 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|--------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 | |
| Atypical Focus | | 2 | | | 2 | | | | | | 2 | | | | | | | | | | | 2 | 6 1.8 | |
| Hyperplasia, Lobular | 4 | 4 | 4 | | 3 | | 2 | 3 | | 4 | 2 | 4 | 3 | 1 | 2 | 2 | 4 | 2 | 2 | 4 | 3 | 2 | 3 | 39 2.8 |
| Alveolus, Dilatation | | | | | | | | | | | | | | 2 | | | | | | | | | 3 | 4 2.5 |
| Duct, Dilatation | | 3 | | 1 | | | | | | | | | | 2 | | 2 | | 2 | | | 2 | | 4 | 9 2.2 |
| Skin | + | | | + | | | | | | | | | | | | | | | | | | | 8 | |
| Epithelium, Foot, Hyperplasia | 4 | | | 4 | | | | | | | | | | | | | | | | | | | 5 4.0 | |
| Foot, Edema | 4 | | | 4 | | | | | | | | | | | | | | | | | | | 5 3.8 | |
| Foot, Fibrosis | 4 | | | | | | | | | | | | | | | | | | | | | | 4 3.8 | |
| Foot, Inflammation, Chronic Active | 4 | | | 4 | | | | | | | | | | | | | | | | | | | 5 4.0 | |
| Foot, Necrosis | 4 | | | 3 | | | | | | | | | | | | | | | | | | | 3 3.7 | |
| Foot, Ulcer | 4 | | | 4 | | | | | | | | | | | | | | | | | | | 5 4.0 | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Compression | 1 | 4 | | 1 | | | | | | | 4 | | 2 | | | 1 | 3 | | 2 | | | 2 | 11 2.3 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Ventricle, Dilatation | | 2 | | | | | | | | | 2 | | | | | | | 1 | | | | | 3 1.7 |

RESPIRATORY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
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|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|
| | 077 | 075 | 076 | 074 | 074 | 074 | 075 | 077 | 075 | 076 | 075 | 075 | 076 | 077 | 077 | 075 | 077 | 076 | 076 | 077 | | 075 | 075 |
| ANIMAL ID | 05952 | 05561 | 05562 | 05561 | 05567 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 | 05577 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 5 | 6 | 4 | 4 | 4 | 5 | 7 | 5 | 6 | 5 | 5 | 6 | 7 | 7 | 5 | 7 | 6 | 6 | 7 | 5 | 5 | 7 |
| | 2 | 7 | 5 | 4 | 8 | 8 | 8 | 2 | 8 | 2 | 4 | 1 | 6 | 2 | 2 | 4 | 2 | 5 | 2 | 2 | 7 | 0 | 2 |
| | 7 | 4 | 2 | 3 | 4 | 9 | 2 | 6 | 8 | 9 | 0 | 1 | 0 | 8 | 7 | 1 | 8 | 2 | 4 | 7 | 4 | 6 | 8 |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|---|--|---|--|---|--|--|--|--|---|---|--|--|---|---|--|--|---|--|--------|
| Lung | | | | | A | | | | | | | | | | | | | | | | | | | 39 |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Infiltration Cellular, Histiocyte | | | | | | | 1 | | 1 | | | | | | 2 | | | 1 | 2 | | | | | 11 1.2 |
| Infiltration Cellular, Lymphocyte | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 1.0 |
| Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Nose | | | | | | | | | | | | | | | | | | | | | | | | 35 |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | X | | 1 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | 2 | | 1 2.0 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | | | | 1 | | | | | | | | | | | 3 | | | | | | 6 2.5 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | 1 | | | | | 3 1.7 |
| Transitional Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Upper Molar, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | 3 | | 1 3.0 |
| Trachea | | | | | A | | | | | | | | | | | | | | | | | | | 33 |

SPECIAL SENSES SYSTEM

NONE

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|--------|
| Kidney | | | | | | | | | | | | | | | | | | | | | | | | 47 |
| Casts Protein | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 5 1.0 |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 28 1.4 |

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P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25.0 StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|----|-----|
| | 0727 | 0754 | 0762 | 0743 | 0744 | 0744 | 0755 | 0777 | 0755 | 0766 | 0755 | 0766 | 0777 | 0777 | 0755 | 0777 | 0766 | 0766 | 0777 | 0755 | | 0755 | 0777 | | |
| ANIMAL ID | 05952 | 05951 | 05952 | 05951 | 05952 | 05951 | 05952 | 05951 | 05952 | 05951 | 05952 | 05951 | 05952 | 05951 | 05952 | 05951 | 05952 | 05951 | 05952 | 05951 | 05952 | 05951 | 05952 | | |
| Nephropathy | | 1 | | 3 | 1 | | | 3 | | 1 | 1 | 1 | 1 | | | | | | | 1 | | 1 | 3 | 25 | 1.5 |
| Cortex, Cyst | | | | | | | | | | | | | X | | | | | | X | | | X | X | 9 | |
| Renal Tubule, Cyst | | | | X | | | | | | X | | | | | | X | | X | X | | | | | 11 | |
| Transitional Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | 2 | 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | 0630 | 0638 | 0542 | 0727 | 0622 | 0568 | 0665 | 0449 | 0448 | 0551 | 0558 | 0727 | 0673 | 0726 | 0449 | 0662 | 0446 | 0772 | 0770 | 0557 | 0555 | 0727 | 0676 | 003 | females
(cont...) |
| | ANIMAL ID | 01771 | 01778 | 01781 | 01772 | 01771 | 01772 | 01771 | 01771 | 01771 | 01771 | 01771 | 01771 | 01771 | 01771 | 01771 | 01771 | 01771 | 01771 | 01771 | 01771 | 01771 | 01771 | 01771 | 01771 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Esophagus | + | + | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Large, Colon | A | + | + | | + | + | + | + | + | + | A | + | | + | + | + | + | + | + | + | + | + | + | + | + |
| Intestine Small, Ileum | A | + | + | | + | + | + | + | + | + | A | + | | + | + | + | + | + | + | + | + | + | + | + | + |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | | | | | 1 | | | | | | | | | | | | | | | | | | 2 | | |
| Basophilic Focus | | | X | | | | | X | X | | | | X | | X | X | X | X | X | X | | X | | X | X |
| Clear Cell Focus | | | | | | | | | | | | | | | | X | | X | | | | | X | | |
| Degeneration, Cystic | | 1 | | | | 1 | | | | | | | | | | 1 | | | | | 1 | | | | |
| Fatty Change | | 2 | | 2 | 3 | | | 3 | 2 | | | 3 | 4 | | 2 | | | | | | 2 | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | 4 | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | X | | X | | X | | | | | | X | | | | |
| Infiltration Cellular, Mononuclear Cell | | 2 | | 1 | 2 | 1 | 2 | | | | | 1 | | 2 | | 1 | 1 | | 1 | 1 | 2 | | | 2 | |
| Inflammation, Chronic Active | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | |
| Tension Lipidosis | | 4 | | 3 | | | | 2 | | | | | | 4 | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | 2 | | | | | | | | | 2 | | |
| Bile Duct, Hyperplasia | | 1 | | | 2 | 2 | 2 | | | | | | | 3 | | | | | 3 | 3 | | | | 3 | 1 |
| Biliary Tract, Cyst | | | | | | | | | | | X | | | | | | | | | | | | | | |
| Biliary Tract, Fibrosis | | 1 | 1 | | | | | | | | | | | 1 | | | | | 1 | 1 | | | | | 1 |
| Hepatocyte, Necrosis | | | 1 | | | | | | | | | | | | | | | | | | | | | | |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | |

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(cont...) | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|--------|------|
| | 0630 | 0638 | 0542 | 0727 | 0622 | 0526 | 0668 | 0665 | 0449 | 0448 | 0554 | 0559 | 0729 | 0676 | 0772 | 0446 | 0644 | 0667 | 0775 | 0552 | | | 0556 | 0728 | 0663 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 017771 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Fat, Necrosis | | | | | | | | | | | 3 | | | | | 4 | | | | | | | | | |
| Pancreas | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Infiltration Cellular, Lymphocyte | | 2 | | 2 | 3 | | | 1 | | 1 | | 2 | | 3 | 2 | | | 1 | | 2 | | | 1 | 1 | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | 1 | | | | | | |
| Lipomatosis | | | | 2 | | | | | | | | | | | | | | 2 | | | | | | | |
| Pigmentation | | | | | 2 | | | 1 | | | | | 2 | | | | | | 1 | | | | | | |
| Acinus, Degeneration | | 3 | 1 | 3 | 3 | 1 | | 1 | | 1 | | 3 | | 4 | 2 | 1 | | | 4 | | | 1 | 3 | 2 | |
| Stomach, Forestomach | + | + | + | | + | + | + | + | + | + | + | | + | | + | + | + | + | | + | + | + | | + | |
| Stomach, Glandular | A | + | + | | + | + | + | + | + | + | + | | + | | + | + | + | + | | + | + | + | | + | |
| Mineralization | | | | | | | | | | | 2 | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | 3 | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | 2 | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Blood Vessel | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Heart | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Cardiomyopathy | | 2 | | 2 | 1 | | 1 | 1 | 3 | 1 | 1 | 1 | 2 | 1 | 2 | | 2 | | 2 | 1 | 2 | 1 | 1 | 1 | |
| Mineralization | | | | | | | | | 2 | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Adrenal Cortex | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Angiectasis | | | | | | | | 2 | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | 4 | | 2 | | | | 4 | | | | 3 | 3 | 4 | 2 | | 4 | | 3 | 2 | 2 | 3 | 1 | 4 | 1 | |
| Hyperplasia | | | | | | | | 2 | | | 2 | | 2 | | | | | | | | | | | 1 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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(cont...) | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|------|------|
| | 0630 | 0638 | 0542 | 0727 | 0672 | 0526 | 0665 | 0664 | 0449 | 0448 | 0551 | 0558 | 0774 | 0673 | 0746 | 0462 | 0463 | 0675 | 0720 | 0576 | | | 0556 | 0778 | 0670 | 0752 |
| Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Osseous | | | | | | | | | | 3 | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | 2 | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | 2 | | | | | | | | | | 2 | | 2 | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | M | |
| Hyperplasia | | 2 | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Hyperplasia | | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Hyperplasia | | | | | | 2 | | | | | | | | | | | | | | | | | 2 | | 1 | 2 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Angiectasis | | 4 | 4 | | | | | | | | | | 4 | | 2 | 2 | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Cyst | | | | | | | | | | | X | X | | | | | | | | | | | | X | | |
| Pars Distalis, Hyperplasia | | | | 4 | 3 | 3 | 3 | 3 | 3 | 4 | | | | | 2 | 3 | 2 | 2 | 2 | 3 | | 4 | 4 | | | |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | X | X | | | | | | | | | | | |
| Thyroid Gland | A | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ultimobranchial Cyst | | | | | | | | | X | X | | X | X | X | | | | | | | | | | | | |
| C-cell, Hyperplasia | | 1 | 1 | | 2 | | 1 | 2 | 1 | | | | 1 | 1 | 1 | | | | | | | 2 | 1 | 2 | 3 | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|-------|------|
| | 0630 | 0638 | 0542 | 0727 | 0662 | 0568 | 0665 | 0644 | 0448 | 0541 | 0559 | 0722 | 0677 | 0742 | 0699 | 0647 | 0463 | 0770 | 0576 | 0556 | | | 0728 | 0670 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11771 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11772 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11778 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11781 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11782 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11789 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11790 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11791 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11799 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11800 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11801 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11802 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11803 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11804 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11805 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11806 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11807 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11808 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11809 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11810 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11811 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11812 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11813 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11814 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11815 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11816 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11817 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11818 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11819 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 11820 | |

NONE

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Sertoliform | | | | | | | | | | | | | | | | | | | | | | | | |
| Bilateral, Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Bursa, Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Follicle, Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Oviduct | | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | | | | | | | | | | | | | | | | | | | | | | | | |

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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0630 | 0638 | 0654 | 0672 | 0676 | 0655 | 0666 | 0666 | 0644 | 0644 | 0655 | 0655 | 0677 | 0666 | 0677 | 0644 | 0666 | 0644 | 0666 | 0677 | 0655 | 0655 | 0677 | 0666 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 01771 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 01111 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 07771 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 07781 | |

Lumen, Dilatation

4

4

Vagina

A +

Infiltration Cellular, Polymorphonuclear

Epithelium, Degeneration

Epithelium, Hyperplasia

Epithelium, Mucification

3

2

4

3

2

4

4

4

1

3

4

2

1

2

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3

4

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1

2

1

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1

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3

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2

HEMATOPOIETIC SYSTEM

Bone Marrow

Hypocellularity

+ + + + + + + + + + A + + + + + + + + + + + + + + +

3

Lymph Node

Lumbar, Degeneration, Cystic

Lumbar, Hyperplasia, Lymphoid

Lumbar, Infiltration Cellular, Plasma Cell

Popliteal, Hyperplasia, Lymphoid

Popliteal, Infiltration Cellular, Plasma Cell

Renal, Hyperplasia, Lymphoid

Renal, Infiltration Cellular, Plasma Cell

+

+

+

+

4

+

2

3

4

+

2

4

4

4

Lymph Node, Mandibular

Degeneration, Cystic

Hyperplasia, Lymphoid

Infiltration Cellular, Plasma Cell

+

+

+

3

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4

Lymph Node, Mesenteric

+

Spleen

+ + + + + + + + + + A + + + + + + + + + + + + + + +

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|---|----------------------|--|
| | 0630 | 0638 | 0654 | 0672 | 0665 | 0656 | 0666 | 0644 | 0644 | 0655 | 0655 | 0677 | 0666 | 0677 | 0644 | 0666 | 0644 | 0666 | 0677 | 0655 | 0655 | 0677 | 0666 | | | |
| ANIMAL ID | 01771 | 01177 | 01178 | 01178 | 01177 | 01177 | 01178 | 01178 | 01178 | 01178 | 01178 | 01178 | 01178 | 01178 | 01178 | 01178 | 01178 | 01178 | 01178 | 01178 | 01178 | 01178 | 01178 | | | |
| Hematopoietic Cell Proliferation Necrosis | 4 | | | 3 | 3 | 1 | 2 | 3 | | 3 | 2 | 4 | | 2 | 2 | 2 | 1 | | 3 | 1 | | 2 | 3 | | | |
| Pigmentation | | 4 | 3 | | | 2 | 2 | 1 | 4 | 2 | | 2 | 2 | | | 2 | 1 | | | 4 | | 2 | 4 | 3 | 2 | |
| Thymus Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| | | 4 | 3 | 4 | 4 | 4 | 3 | 4 | 4 | 3 | 4 | 4 | 4 | 4 | | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Mammary Gland Atypical Focus | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lobular | | | 3 | 4 | 2 | 3 | 3 | 2 | 3 | | 4 | 1 | 2 | | 1 | 2 | 3 | 2 | 2 | 4 | 2 | 3 | 4 | | |
| Alveolus, Dilatation | | | 3 | | | | | | | | | 2 | 2 | | | | | 2 | | | 2 | | | | |
| Duct, Dilatation | | 3 | 3 | | | | | | | | | 2 | 2 | | | | | 3 | | | | 2 | | | |
| Duct, Hyperplasia | | | | | | | | | | 2 | | | | | | | | | | | | | | | |
| Skin | | + | | + | | | | | | + | | + | + | + | | | + | | + | | | | + | | |
| Epithelium, Foot, Hyperplasia | | | | 4 | | | | | | 4 | | 4 | 4 | | | | | 4 | | | | | 4 | | |
| Foot, Edema | | | | 4 | | | | | | 4 | | 4 | 4 | | | | | 4 | | | | | 4 | | |
| Foot, Fibrosis | | | | 4 | | | | | | | | 4 | 4 | | | | | 4 | | | | | 4 | | |
| Foot, Inflammation, Chronic Active | | | | 4 | | | | | | 4 | | 4 | 4 | | | | | 4 | | | | | 4 | | |
| Foot, Necrosis | | | | 4 | | | | | | 4 | | 4 | 4 | | | | | 4 | | | | | 4 | | |
| Foot, Ulcer | | | | 4 | | | | | | 4 | | 4 | 4 | | | | | 4 | | | | | 4 | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | 0630 | 0638 | 0542 | 0727 | 0652 | 0666 | 0666 | 0444 | 0444 | 0555 | 0555 | 0777 | 0666 | 0777 | 0444 | 0666 | 0444 | 0666 | 0777 | 0555 | 0555 | 0777 | 0666 | 0666 | 0666 | 0666 | 0666 |
| | ANIMAL ID | 0171 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 | 0111 |

females (cont...)

NONE

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Kidney | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Casts Protein | | | 2 | | | | | | 4 | | | | | | 1 | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | | | 2 | | | 2 | 1 | 3 | 1 | | 1 | | 1 | | | | | 1 | | 2 | | | | | | | 1 | |
| Nephropathy | | 1 | | | 1 | 1 | | 1 | | 1 | | | 2 | 1 | | | 1 | | 1 | 1 | 2 | 1 | 1 | | | | | 1 | |
| Cortex, Cyst | | | X | | | | | | | | | | | | | | | | | X | | | | | | | | X | |
| Renal Tubule, Cyst | X | | | | | | | | X | X | | | | | | | X | | X | X | | | | | | X | | | |
| Transitional Epithelium, Hyperplasia | | | 2 | 1 | | | | | | | | | | 2 | | | | | | 1 | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue

M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | 0723 | 0728 | 0536 | 0733 | 0778 | 0778 | 0462 | 0560 | 0651 | 0565 | 0675 | 0778 | 0776 | 0681 | 0669 | 0488 | 0661 | 0725 | 0449 | 0446 | 0663 | 0506 | 0728 | * TOTALS |
| | ANIMAL ID | 0611 | 0612 | 0613 | 0614 | 0615 | 0616 | 0617 | 0618 | 0619 | 0620 | 0621 | 0622 | 0623 | 0624 | 0625 | 0626 | 0627 | 0628 | 0629 | 0630 | 0631 | 0632 | 0633 | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|
| Esophagus | | | + | + | | + | | + | + | + | + | + | | | + | + | + | + | + | | + | + | + | + | 37 | |
| Intestine Large, Colon | | | + | + | | + | | + | + | + | + | + | | | + | + | + | + | + | | + | + | + | + | 35 | |
| Intestine Small, Ileum | | | + | + | | + | | + | + | + | + | + | | | + | + | + | + | + | | + | + | + | + | 35 | |
| Liver | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | | | 1 | | 2 | | | | 2 | | | | | | | | | | | | | | | 5 | 1.6 |
| Basophilic Focus | | | | X | X | X | X | X | | X | | | X | X | | X | X | X | X | | X | | X | X | 28 | |
| Clear Cell Focus | | X | X | X | | X | | | | | | | | | | | | | | | | | | | 7 | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | 1 | | | | | | | | | 5 | 1.0 |
| Fatty Change | | | | 1 | | | | | | | 1 | | 3 | 1 | 2 | 2 | | | | | | 1 | 2 | 2 | 18 | 2.1 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | 1 | | | | | | | 1 | | | | | 2 | 1.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Hepatodiaphragmatic Nodule | | | | | | X | | | | | | | | | | | | | | | | | | | 6 | |
| Infiltration Cellular, Mononuclear Cell | | 1 | | | 2 | | 1 | | | 1 | | | 1 | 1 | 1 | 1 | | | 1 | | 2 | | 1 | 2 | 25 | 1.4 |
| Inflammation, Chronic Active | | | | | | | | | 2 | | | | | | 2 | | | | | | | | | | 3 | 1.7 |
| Mineralization | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Tension Lipidosis | | | | 2 | | | | 4 | 3 | 4 | | 3 | | | | | 4 | | 3 | | | 4 | | | 13 | 3.2 |
| Vacuolization Cytoplasmic | | | 2 | | | | 1 | | | 2 | 2 | 1 | | 1 | | | | | | 2 | | | | | 9 | 1.7 |
| Bile Duct, Hyperplasia | 2 | 2 | | | 2 | 2 | 1 | | | | | 1 | | | | | 3 | | 1 | 1 | | 1 | | | 19 | 1.9 |
| Biliary Tract, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Biliary Tract, Fibrosis | | | | | | 1 | | | | | | | | | | | | | | | | | | | 7 | 1.0 |
| Hepatocyte, Necrosis | | | | | | | | | | 2 | | | | | | 2 | | | | | | | | | 3 | 1.7 |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | 2 | | | | | | | 1 | 2.0 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | | | | | 2 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|--------|--------|--------|
| | 0723 | 0728 | 0753 | 0773 | 0777 | 0777 | 0777 | 0744 | 0755 | 0766 | 0755 | 0766 | 0777 | 0777 | 0777 | 0766 | 0766 | 0744 | 0766 | 0777 | | 0744 | 0744 | 0766 | 0755 |
| ANIMAL ID | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 | 061112 |

Fat, Necrosis 2 3.5

Pancreas 49

Infiltration Cellular, Lymphocyte 28 1.6

Inflammation, Chronic Active 1 1.0

Lipomatosis 4 2.0

Pigmentation 8 1.3

Acinus, Degeneration 35 2.1

Stomach, Forestomach 37

Stomach, Glandular 37

Mineralization 1 2.0

Pigmentation 1 3.0

Epithelium, Hyperplasia 1 2.0

CARDIOVASCULAR SYSTEM

Blood Vessel 50

Heart 50

Cardiomyopathy 37 1.5

Mineralization 1 2.0

ENDOCRINE SYSTEM

Adrenal Cortex 50

Angiectasis 2 2.0

Degeneration, Cystic 32 2.9

Hyperplasia 7 1.7

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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Lab: NCTR

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RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|
| | 0723 | 0728 | 0753 | 0773 | 0777 | 0777 | 0777 | 0744 | 0755 | 0766 | 0755 | 0766 | 0777 | 0777 | 0777 | 0766 | 0766 | 0744 | 0766 | 0777 | | 0744 | 0744 | 0766 | 0755 |
| ANIMAL ID | 0611 | 0612 | 0661 | 0661 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 |
| Hypertrophy | | | | | | | | | | | | | | | | | | 2 | | | 3 | | | | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | 2 | | | 2 | | | | |
| Adrenal Medulla Hyperplasia | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 48 |
| Islets, Pancreatic Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Parathyroid Gland Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pituitary Gland Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Hypertrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Intermedia, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ultimobranchial Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |
| C-cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | | | | | | | | | | | |
|---|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|------|------|------|------|-----|-----|-----|-----|-----|-----|-----|
| | 0723 | 0728 | 0736 | 0738 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | 0778 | | 0778 | 0778 | | | | | | | | | | | | | | |
| ANIMAL ID | 0611 | 0612 | 0613 | 0614 | 0615 | 0616 | 0617 | 0618 | 0619 | 0620 | 0621 | 0622 | 0623 | 0624 | 0625 | 0626 | 0627 | 0628 | 0629 | 0630 | 0631 | 0632 | 0633 | 0634 | 0635 | 0636 | 0637 | 0638 | 0639 | 0640 | | | | | | | |
| Lumen, Dilatation | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4.0 | | | | | | |
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | | | | | | |
| Infiltration Cellular, Polymorphonuclear Epithelium, Degeneration | 3 | | | | 3 | | | | | | | | 3 | | | | | | | | | | | | | | | | | 3 | 3.0 | | | | | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.9 | | | | | |
| Epithelium, Mucification | 2 | 3 | 4 | 2 | 4 | 2 | 3 | 3 | 4 | 4 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 3 | 3 | 3 | 3 | 44 | 3.0 | | | | | |
| HEMATOPOIETIC SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Bone Marrow Hypocellularity | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | | | | | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 2 | 3.0 | | | | |
| Lymph Node | | | | | + | | | | | | + | | | | | | | | | | | | | | | | | | | | | 10 | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 4 | 2.8 | | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 5 | 3.4 | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 4 | 8 | 4.0 | | |
| Popliteal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | | | |
| Popliteal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 | | | |
| Renal, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 2 | 4.0 | | | |
| Lymph Node, Mandibular Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 | 5 | 3.4 | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 7 | 3.6 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 7 | 3.9 |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|
| | 0723 | 0728 | 0536 | 0730 | 0738 | 0778 | 0778 | 0462 | 0560 | 0654 | 0565 | 0673 | 0777 | 0777 | 0668 | 0666 | 0446 | 0677 | 0444 | 0666 | | 0557 |
| ANIMAL ID | 061112 | 061122 | 061131 | 061133 | 061138 | 061179 | 061179 | 061177 | 061177 | 061177 | 061177 | 061177 | 061177 | 061177 | 061177 | 061177 | 061177 | 061177 | 061177 | 061177 | 061177 | 061177 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|-----|----|----|-----|
| Hematopoietic Cell Proliferation Necrosis | 4 | | | 2 | | 2 | 2 | 4 | 4 | 3 | 2 | 3 | 4 | 1 | 2 | 3 | 2 | 3 | 2 | 4 | 3 | | 3 | 35 | 2.5 | | | |
| Pigmentation | | 1 | | | 2 | 3 | 2 | | | | | 2 | 3 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 3 | 3 | 1 | 1 | 3 | 35 | 2.2 |
| Thymus Atrophy | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | 47 | 3.8 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|
| Mammary Gland Atypical Focus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | 8 | 1.8 | |
| Galactocele | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hyperplasia, Lobular | 4 | 4 | 2 | 2 | | 3 | 3 | 4 | 4 | 4 | | 4 | 3 | 4 | 4 | 3 | 4 | | | 3 | 4 | 3 | 4 | 3 | | | 39 | 3.1 | |
| Alveolus, Dilatation | | | | | | 2 | | | | | | | | | | | 3 | | | | 2 | | | | | | | 8 | 2.3 |
| Duct, Dilatation | | | | | | 2 | | | | | | | | | | | | | | | 2 | | | | | | | 9 | 2.3 |
| Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Skin | | + | | + | + | | + | + | + | | | | + | | | | | | | + | | | + | | + | 19 | | | |
| Epithelium, Foot, Hyperplasia | | 4 | | | | | 4 | 4 | 4 | | | | 4 | | | | | | | 4 | | | 4 | | 4 | | 14 | 4.0 | |
| Foot, Edema | | 3 | | | | | 4 | 4 | 4 | | | | 4 | | | | | | | 4 | | | 4 | | 4 | | 12 | 3.9 | |
| Foot, Fibrosis | | 4 | | | | | 4 | 4 | 4 | | | | 4 | | | | | | | | | | 4 | | 4 | | 12 | 4.0 | |
| Foot, Inflammation, Chronic Active | | 4 | | | | | 4 | 4 | 4 | | | | 4 | | | | | | | 4 | | | 4 | | 4 | | 14 | 4.0 | |
| Foot, Necrosis | | 4 | | | | | 4 | 4 | 4 | | | | 4 | | | | | | | 4 | | | 4 | | 4 | | 14 | 4.0 | |
| Foot, Ulcer | | 4 | | | | | 4 | 4 | 4 | | | | 4 | | | | | | | 4 | | | 4 | | 4 | | 14 | 4.0 | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|---|--|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|
| | 0723 | 0728 | 0536 | 0733 | 0778 | 0778 | 0778 | 0778 | 0462 | 0560 | 0651 | 0651 | 0745 | 0745 | 0776 | 0681 | 0669 | 0488 | 0661 | 0728 | | 0449 | 0449 | 0663 | 0566 | 0728 |
| ANIMAL ID | 0611 | 0612 | 0662 | 0663 | 0666 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 7 | 7 | 5 | 7 | 7 | 7 | 7 | 4 | 5 | 6 | 5 | 6 | 7 | 7 | 7 | 6 | 6 | 4 | 6 | 7 | 4 | 4 | 6 | 5 | 7 | 7 |
| | 2 | 2 | 3 | 0 | 2 | 0 | 2 | 6 | 9 | 4 | 4 | 5 | 3 | 2 | 0 | 8 | 9 | 8 | 1 | 2 | 5 | 4 | 6 | 0 | 2 | 8 |
| | 3 | 8 | 6 | 3 | 8 | 8 | 6 | 2 | 0 | 5 | 1 | 5 | 0 | 8 | 6 | 8 | 1 | 6 | 0 | 8 | 1 | 9 | 3 | 6 | 2 | 8 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 6 | 6 | 6 | 6 | 6 | 7 | 7 | 7 | 7 | 8 | 8 | 8 | 8 | 8 | 8 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 |
| | 1 | 1 | 1 | 1 | 1 | 9 | 9 | 9 | 9 | 0 | 0 | 0 | 0 | 0 | 0 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 |
| | 1 | 2 | 2 | 3 | 3 | 8 | 8 | 9 | 9 | 0 | 0 | 1 | 1 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 | 1 | 2 | 2 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Compression | | | 1 | | | | 3 | | | | | | | | | 1 | | | | | 2 | | 3 | | | 11 2.4 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ventricle, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Nerve Trigeminal | + | + | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Axon, Degeneration | | | 1 | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Peripheral Nerve, Sciatic | + | + | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Peripheral Nerve, Tibial | + | + | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Spinal Cord, Cervical | + | + | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Spinal Cord, Lumbar | + | + | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Axon, Degeneration | | | 1 | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Spinal Cord, Thoracic | + | + | | | | | | | | | | | | | | | | | | | | | | | | 3 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------|---|---|---|--|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Lung | + | + | + | | + | | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 40 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 250.0StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|------|------|--------|
| | 0723 | 0728 | 0753 | 0773 | 0777 | 0777 | 0777 | 0777 | 0744 | 0755 | 0766 | 0755 | 0766 | 0777 | 0777 | 0777 | 0766 | 0766 | 0744 | 0766 | | 0777 | 0744 | 0744 | 0766 | 0755 | 0777 |
| ANIMAL ID | 0611 | 0612 | 0661 | 0663 | 0666 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | 0667 | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Infiltration Cellular, Histiocyte | | | 1 | | 2 | | | | | | | 1 | 2 | | | | 3 | 2 | | | | | | | | | 11 1.8 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | 3 | | | | | | | | | | 2 2.5 |
| Mediastinum, Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Mediastinum, Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Mediastinum, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Nose | | | | + | + | | + | | + | + | + | + | + | | | | + | + | + | + | + | | + | + | + | + | 37 |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | X | | 4 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | 3 3.0 |
| Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 1.9 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 2.0 |
| Respiratory Epithelium, Hyperplasia, Goblet Cell | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Respiratory Epithelium, Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Transitional Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Upper Molar, Inflammation, Chronic Active | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Trachea | | | | + | + | | + | | + | + | + | + | + | | | | + | + | + | + | + | | + | + | + | + | 35 |

SPECIAL SENSES SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|----------------------|
| | 0647 | 0727 | 0651 | 0727 | 0665 | 0665 | 0391 | 0766 | 0663 | 0663 | 0577 | 0668 | 0488 | 0591 | 0728 | 0775 | 0663 | 0552 | 0552 | 0564 | 0729 | 0448 | 0144 | | |
| ANIMAL ID | 01931 | 01932 | 01934 | 01942 | 01951 | 01952 | 01952 | 01959 | 01961 | 01962 | 01964 | 01964 | 01964 | 01964 | 01964 | 01964 | 01964 | 01964 | 01964 | 01964 | 01964 | 01964 | 01964 | | |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-----|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Esophagus | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Ulcer | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Periesophageal Tissue, Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Periesophageal Tissue, Inflammation, Granulomatous | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Intestine Large, Colon | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Ileum | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Diverticulum | | | | | | | | | | | | | | | | | | | | | | | | | |
| Liver | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | X | | | | | | | | | | | | | | | | | | | | | | | | |
| Clear Cell Focus | | | | | | | | | | | | | | | | | | | | | | | | | |
| Deformity | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fatty Change | | | | | | | | | | | | | | | | | | | | | | | | | 1 3 |
| Hematopoietic Cell Proliferation | 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | | | | X |
| Infiltration Cellular, Mononuclear Cell | 2 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 1 1 1 2 1 1 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| Tension Lipidosis | 3 4 | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Vacuolization Cytoplasmic | 2 | | | | | | | | | | | | | | | | | | | | | | | | 2 |
| Bile Duct, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 4 2 4 1 2 1 1 2 1 1 2 1 1 1 1 1 1 1 1 1 1 |
| Biliary Tract, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | |
| Biliary Tract, Fibrosis | 2 | | | | | | | | | | | | | | | | | | | | | | | | 3 1 |
| Capsule, Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 2 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
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 1-4 .. Lesion qualified as:
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|--|----------------------|
| | 0647 | 0727 | 0651 | 0727 | 0666 | 0666 | 0663 | 0779 | 0664 | 0664 | 0570 | 0722 | 0688 | 0489 | 0572 | 0775 | 0663 | 0555 | 0555 | 0566 | 0729 | 0448 | 0144 | | |
| ANIMAL ID | 01931 | 01932 | 01934 | 01942 | 01951 | 01952 | 01961 | 01962 | 01971 | 01972 | 01984 | 01984 | 01984 | 01994 | 01994 | 01994 | 01994 | 01994 | 01994 | 01994 | 01994 | 01994 | 01994 | | |
| Angiectasis | | | | 2 | | | | | | 2 | | | | | | | | | | | 3 | | | | |
| Degeneration, Cystic Hyperplasia | 2 | | 3 | 4 | 2 | 2 | | | 4 | | 2 | 1 | 3 | | | 4 | 2 | 3 | | 4 | 3 | 2 | | | |
| Vacuolization Cytoplasmic | | 1 | 2 | | | | 1 | | | | 2 | 2 | | | | | | | | | | | | | |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Degeneration, Cystic Hyperplasia | | | | | | | | | 1 | 1 | | 1 | | | | | | 1 | | | 2 | | | | |
| Islets, Pancreatic | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Parathyroid Gland Hyperplasia | M | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | 2 | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Angiectasis | 4 | | | | | | 2 | | | 4 | | | | | 4 | 4 | 3 | 4 | | | | 4 | | | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | 4 | | | |
| Pars Distalis, Cyst | | | X | | | | | | | | | | | | | X | X | | | | | | | | |
| Pars Distalis, Hyperplasia | | 4 | 4 | | 4 | 3 | 4 | | | 4 | 2 | 4 | 2 | | 4 | | | 3 | 4 | 4 | | 3 | | | |
| Pars Intermedia, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | 3 | | | | | | | |
| Rathke's Cleft, Cyst | | | X | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Ultimobranchial Cyst | | X | | | X | X | | | | | | | | | X | X | | | | | | | X | | |
| C-cell, Hyperplasia | | 2 | 1 | | 2 | 3 | 1 | | 1 | 3 | 3 | 1 | 2 | 2 | | 2 | | 1 | | 1 | | 4 | 4 | | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | |
|--|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|-----------------------|
| | 0
6
4
7 | 0
7
2
7 | 0
6
5
1 | 0
7
2
7 | 0
6
5
1 | 0
6
6
5 | 0
6
3
1 | 0
3
9
1 | 0
7
2
6 | 0
6
4
3 | 0
6
4
7 | 0
5
0
7 | 0
7
2
9 | 0
6
8
5 | 0
4
8
9 | 0
5
2
1 | 0
7
2
8 | 0
7
2
5 | 0
6
9
3 | 0
5
5
5 | | | 0
5
6
4 | 0
7
2
9 | 0
4
4
8 | 0
1
4
2 |
| | 0
1
9
3
1 | 0
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2 | 0
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9
4
1 | 0
1
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4
2 | 0
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2 | 0
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1 | 0
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9
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2 | 0
1
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7
1 | 0
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4
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4
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3 | 0
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3 | 0
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1 | 0
6
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2 | 0
6
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6
1 | 0
6
2
6
2 | 0
6
2
6
2 | 0
6
6
6
7 | 0
6
6
6
1 |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Clitoral Gland | + | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | |
| Duct, Dilatation | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Fat Pad, Ovarian/parametrial | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Ovary | + | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | 4 3 4 3 3 3 3 3 4 3 2 3 2 2 3 3 2 2 2 2 4 2 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Sertoliform | 1 2 1 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | | | |
| Bilateral, Cyst | | | | | | | | | | | | | | | | | | | | | | | | |
| Follicle, Cyst | X | | | | | | | | | | | | | | | | | | | | | | | |
| Oviduct | + + + + + + + + + + + + + + A + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | |
| Uterus | + + + + + + + + + + + + + + A + + + + + + + + + + | | | | | | | | | | | | | | | | | | | | | | | |
| Adenomyosis | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | 3 3 3 | | | | | | | | | | | | | | | | | | | | | | | |
| Dilatation | 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Stromal | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Squamous | 1 1 2 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Cervix, Hyperplasia, Stromal | | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrial Glands, Hyperplasia | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia | 2 2 2 2 | | | | | | | | | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | 4 2 3 2 4 2 2 3 2 2 4 2 | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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 Bisphenol A
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 2 Year Animals

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 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|--------|------|
| | 0647 | 0727 | 0651 | 0727 | 0665 | 0665 | 0663 | 0379 | 0064 | 0064 | 0577 | 0066 | 0488 | 0599 | 0078 | 0077 | 0665 | 0555 | 0555 | 0556 | | | 0722 | 0448 | 0441 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 119331 | |

Lumen, Dilatation

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear Epithelium, Degeneration | | | | | 2 | | | | | | | 1 | | | | | | 2 | 2 | 4 | | | | | |
| Epithelium, Hyperplasia | 4 | 2 | 3 | | 4 | | 3 | | 3 | | | | | | | | | | | | 3 | | 3 | | |
| Epithelium, Mucification | | 3 | 2 | 3 | | 4 | 2 | | | 4 | 4 | 4 | 2 | 4 | 4 | | 4 | 2 | 2 | 3 | 4 | 4 | | 3 | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Hypocellularity | | | | | 4 | | | | | | | | | | | | | | | | | | | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node | | | | | | | + | | | | | | | | + | | | | + | + | | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | 2 | | | | | | | | | | | | 2 | | | | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | 2 | | | | | | | | | | | | | | 4 | | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | 4 | | | | | | | | | | | | | 4 | 4 | | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Lymph Node, Mandibular | + | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Plasma Cell | 3 | | | | | | | | | | | | | | | | | | | | | | | | |
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | A | + | + | + | + | + | + | + | + | + | + |
| Hematopoietic Cell Proliferation | | 3 | | 2 | | 2 | 4 | | | 2 | 4 | 3 | 2 | 3 | | 4 | 2 | 3 | 3 | 4 | 4 | 2 | | 2 | 2 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|
| | 0647 | 0767 | 0067 | 0077 | 0066 | 0066 | 0033 | 0077 | 0066 | 0066 | 0055 | 0077 | 0066 | 0044 | 0055 | 0077 | 0077 | 0066 | 0055 | 0055 | 0055 | 0077 | 0044 | 0044 | | |
| | 4 | 2 | 5 | 2 | 5 | 6 | 3 | 9 | 2 | 4 | 4 | 0 | 2 | 8 | 8 | 9 | 2 | 2 | 9 | 0 | 5 | 6 | 2 | 4 | 2 | |
| | 7 | 7 | 1 | 7 | 1 | 5 | 1 | 1 | 6 | 3 | 7 | 9 | 5 | 9 | 9 | 1 | 8 | 5 | 3 | 5 | 2 | 4 | 9 | 8 | 2 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 6 | 6 | 6 | 6 | 6 | |
| | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | |
| | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 7 | 7 | 9 | 9 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 3 | 3 | 5 | 5 | 6 | 6 | 7 | |
| | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | |

Pigmentation
Capsule, Cyst

4 3 3 2 2 1 3 2 1 1 1 1 1 1 1 1 1 1 1 1 2 2 3 2 3

Thymus
Atrophy
Cyst
Epithelial Cell, Hyperplasia

+ M
4 3 3
X
3

INTEGUMENTARY SYSTEM

Mammary Gland
Atypical Focus
Hyperplasia, Lobular
Alveolus, Dilatation
Duct, Dilatation
Duct, Hyperplasia

+
2 4 2 4 2 3 4 4 4 1 3 4 4 4 4 4 1 4
2 3 2
3

Skin
Inflammation, Suppurative
Inflammation, Granulomatous
Metaplasia, Osseous
Ulcer
Epithelium, Foot, Hyperplasia
Foot, Edema
Foot, Fibrosis
Foot, Inflammation, Chronic Active
Foot, Necrosis
Foot, Ulcer

+
4
4
4
4
4 4

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | 0647 | 0727 | 0651 | 0727 | 0665 | 0663 | 0391 | 0766 | 0667 | 0577 | 0668 | 0449 | 0578 | 0778 | 0663 | 0555 | 0555 | 0556 | 0729 | 0448 | 0144 | 0142 | females
(cont...) |
| | ANIMAL ID | 01931 | 01932 | 01934 | 01942 | 01951 | 01952 | 01961 | 01962 | 01971 | 01972 | 01981 | 01982 | 01991 | 01992 | 02001 | 02002 | 02011 | 02012 | 02023 | 02024 | 02035 | 02036 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem
Compression
Hemorrhage | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 4 | | | 1 | 3 | | | | 2 | 2 | | | | | 2 | 1 | | | 2 | | | 4 | | |
| Brain, Cerebellum
Hemorrhage | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebrum
Ventricle, Dilatation | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| | 1 | | | | 2 | | | | | | | | | | 2 | | | | | | | | | |
| Nerve Trigeminal
Axon, Degeneration | | | + | | | | | | | | | | | | | | | | | + | + | | | |
| | | | 3 | | | | | | | | | | | | | | | | | 1 | 2 | | | |
| Peripheral Nerve, Sciatic | | | + | | | | | | | | | | | | | | | | | | + | + | | |
| Peripheral Nerve, Tibial | | | + | | | | | | | | | | | | | | | | | | | + | + | |
| Spinal Cord, Cervical
Axon, Degeneration | | | + | | | | | | | | | | | | | | | | | | | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | 2 | |
| Spinal Cord, Lumbar
Axon, Degeneration | | | + | | | | | | | | | | | | | | | | | | | + | + | |
| | | | 1 | | | | | | | | | | | | | | | | | | | | 2 | |
| Spinal Cord, Thoracic
Axon, Degeneration | | | + | | | | | | | | | | | | | | | | | | | + | + | |
| | | | | | | | | | | | | | | | | | | | | | | | 2 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
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 2 Year Animals

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 Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | 0647 | 0727 | 0651 | 0727 | 0665 | 0663 | 0391 | 0726 | 0664 | 0667 | 0570 | 0729 | 0668 | 0489 | 0572 | 0773 | 0650 | 0552 | 0554 | 0729 | 0468 | 0448 | 0142 |
| | ANIMAL ID | 01931 | 01932 | 01934 | 01935 | 01936 | 01937 | 01938 | 01939 | 01940 | 01941 | 01942 | 01943 | 01944 | 01945 | 01946 | 01947 | 01948 | 01949 | 01950 | 01951 | 01952 | 01953 | 01954 |

females
(cont...)

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Casts Protein | | | | | | | 1 | | | | | | | | | | 1 | | | | | | | |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Polymorphonuclear | 1 | | | | | | | | | | | | | | | | | | | | | | | |
| Mineralization | | 1 | | | | 1 | 2 | | | 1 | 1 | | 1 | 2 | 3 | | | | | 3 | | | | 2 |
| Nephropathy | 2 | 3 | 1 | 2 | 1 | | | | 2 | 1 | | 1 | | | | | 1 | | 1 | 2 | | 2 | 2 | 4 |
| Cortex, Cyst | | | | | | | | X | | | | | | | | | | | X | | | | X | |
| Renal Tubule, Cyst | | X | | | | | | | | | X | X | X | | X | | X | | | | | X | | X |
| Transitional Epithelium, Hyperplasia | | | | | | | | | 1 | | | | | 1 | | | | | | | | | | |
| Urinary Bladder | | | | | | | | | | | + | | | | | | | | | | | | | |
| Congestion | | | | | | | | | | | | 2 | | | | | | | | | | | | |

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 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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Experiment Number: 10034 - 04
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 Bisphenol A
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|---|--------|--------|
| | 0471 | 0728 | 0729 | 0641 | 0669 | 0725 | 0569 | 0063 | 0057 | 0043 | 0054 | 0072 | 0058 | 0072 | 0066 | 0066 | 0072 | 0077 | 0052 | 0057 | | 0072 | 0077 | | | |
| ANIMAL ID | 06272 | 06281 | 06282 | 06282 | 06282 | 06281 | 06281 | 06281 | 06281 | 06281 | 06281 | 06281 | 06281 | 06281 | 06281 | 06281 | 06281 | 06281 | 06281 | 06281 | 06281 | 06281 | | | | |
| Angiectasis | | | 3 | | | | | 2 | | | | | | | | | | | | | | 2 | 6 2.3 | | | |
| Degeneration, Cystic | | 4 | 2 | 2 | 3 | 4 | 3 | | | | | 4 | 2 | 3 | | 4 | 2 | 4 | 2 | | 4 | 3 | 3 | 3 | 1 | 33 2.8 |
| Hyperplasia | | 2 | | | 3 | | | | | | 2 | | | | | | | | | | | | | | | 3 2.3 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | 5 1.6 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Degeneration, Cystic | | | | | | | | | | | | | 2 | | | | | | | | | | | | | 1 2.0 |
| Hyperplasia | | 1 | | | | 1 | | | | | | | | 2 | | | | | | | | | | | | 8 1.3 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | |
| Parathyroid Gland | + | + | M | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 47 | |
| Hyperplasia | | 2 | | | | | | | | | 3 | | | | 4 | | | | | | | | | 2 | 5 2.6 | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Angiectasis | | 4 | | | | 4 | 4 | | | | | | 4 | | | | | | | 3 | | 4 | | | 14 3.7 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 | |
| Pars Distalis, Cyst | X | | | | | | | | | | | | | | | X | | | | | | | | | 5 | |
| Pars Distalis, Hyperplasia | 4 | | | | 4 | | | | | 2 | 4 | 3 | | 2 | 1 | 2 | 2 | 3 | | | 4 | | 2 | 1 | 1 | 28 3.0 |
| Pars Intermedia, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Rathke's Cleft, Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | |
| Ultimobranchial Cyst | X | X | | | X | X | | | | | | | | | | | | | | | | | X | | 11 | |
| C-cell, Hyperplasia | | 1 | 2 | | | 1 | 1 | 2 | 2 | | | 2 | | | 2 | 2 | | | | | 1 | | | 3 | 28 1.9 | |
| Follicular Cell, Hyperplasia | | | | | | | | | | | | | 2 | | 3 | 3 | 2 | | | | | 2 | | | 5 2.4 | |

GENERAL BODY SYSTEM

NONE

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|----------|--------|--------|--------|
| | 0471 | 0728 | 0729 | 0641 | 0669 | 0725 | 0569 | 0573 | 0440 | 0547 | 0553 | 0727 | 0573 | 0728 | 0666 | 0667 | 0667 | 0724 | 0728 | 0521 | | 0557 | 0728 | 0727 |
| ANIMAL ID | 062272 | 062281 | 062282 | 062221 | 062211 | 062211 | 062211 | 062211 | 062233 | 062234 | 062255 | 062211 | 062211 | 062266 | 062266 | 062299 | 062299 | 062299 | 062299 | 062299 | 062299 | 062299 | 062299 | 062299 |

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|
| Clitoral Gland | | | | + | | | | | | | | | | | | | | | | | | | | | 6 | | | |
| Hyperkeratosis | | | | 3 | | | | | | | | | | | | | | | | | | | | | | 4 | 3 | 3.7 |
| Inflammation, Suppurative | | | | 4 | | 4 | | | | 2 | | | | | | | | | | | | | | | | 4 | 5 | 3.6 |
| Duct, Dilatation | | | | 3 | | 4 | | | | 3 | | | | | | | | | | | | | | | | 4 | 6 | 3.7 |
| Fat Pad, Ovarian/parametrial | | | | | | | | | | | | | | | | | | | | | | | | | | + | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1 | 4.0 |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | | |
| Atrophy | 2 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 3 | 3 | 2 | 2 | 2 | 2 | 3 | 2 | 2 | 3 | 2 | 4 | | 49 | 2.7 | |
| Cyst | | X | | | | | | | | | X | X | | | | | | | X | | X | | | | | 5 | | |
| Hyperplasia, Sertoliform | | | | | | | | | | | | | | | | | | | 1 | | | 1 | 1 | | | 7 | 1.3 | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | 2 | | | | | | | | | | | 1 | 2.0 | |
| Bilateral, Cyst | | | | | | | | | | | | | | X | | | | | | | | | | | | 1 | | |
| Follicle, Cyst | | | | | | | X | | | | | | | | | | | | | | | | | | | 2 | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | | |
| Adenomyosis | | | | | | | | | | | | | | | | | | | | | | 2 | | | | 1 | 2.0 | |
| Atrophy | | | | | | 4 | | | | | | | | | | | 3 | | | | | | | 3 | | 7 | 3.1 | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 | |
| Hyperplasia, Stromal | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Metaplasia, Squamous | | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 1.3 | |
| Cervix, Hyperplasia, Stromal | | | | | | | | | | | | | | | | 4 | | | | | | | | | | 1 | 4.0 | |
| Endometrial Glands, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Endometrium, Hyperplasia | 2 | | 2 | | | | | | | | 2 | | 2 | | | | | | | | 1 | | 2 | | | 12 | 1.8 | |
| Endometrium, Hyperplasia, Cystic | | 3 | | 2 | 2 | | 2 | 2 | 2 | | | 4 | | 3 | 3 | | | 2 | 2 | 2 | 2 | | 3 | | | 28 | 2.5 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04

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Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

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Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |
|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|----|
| | 04 | 07 | 07 | 06 | 06 | 07 | 05 | 06 | 05 | 04 | 05 | 07 | 05 | 07 | 06 | 06 | 06 | 06 | 07 | 07 | | 05 | 05 | 07 | 07 |
| ANIMAL ID | 06 | 06 | 06 | 06 | 06 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 09 | 09 | 09 | 09 | 09 | 09 | 10 | 10 | 10 | 10 |
| | 22 | 22 | 22 | 22 | 22 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 19 | 19 | 19 | 19 | 19 | 19 | 00 | 00 | 00 | 00 |
| | 77 | 88 | 88 | 99 | 99 | 22 | 22 | 33 | 33 | 44 | 44 | 55 | 55 | 66 | 66 | 66 | 77 | 88 | 88 | 88 | 99 | 00 | 00 | 00 | 00 |
| | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 | 11 | 22 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|-----|-----|----|-----|-----|-----|
| Lumen, Dilatation | 4 | | | | | | | | | | | | | | | | | | | | 3 | 2 | 3.5 | | | | | |
| Vagina | + | | | | | | | | | | | | | | | | | | | | + | + | + | 49 | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | | | | |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | | | | | | | | | 3 | 2 | 4 | 13 | 2.5 | | |
| Epithelium, Degeneration | | | | | | | | | | | | | | | | | | | | | 4 | | | | 5 | 3.2 | | |
| Epithelium, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | 7 | 3.0 | | |
| Epithelium, Mucification | | | | | | | | | | | | | | | | | | | | | 2 | 4 | 4 | 4 | 3 | 4 | 39 | 3.4 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 1 | 3.0 | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|---|---|----|-----|-----|---|-----|-----|
| Bone Marrow | + | | | | | | | | | | | | | | | | | | | | + | + | + | 49 | | | | | |
| Hypocellularity | | | | | | | | | | | | | | | | | | | | | | 4 | | 2 | 4.0 | | | | |
| Myeloid Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | 3 | | 2 | 3.0 | | | |
| Lymph Node | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | | | |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 | | | |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.0 | | | |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 4.0 | | | |
| Renal, Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | | | |
| Lymph Node, Mandibular | | | | | | | | | | | | | | | | | | | | | | | | | 6 | | | | |
| Degeneration, Cystic | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3.7 | | | |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 3 | 3.7 | | | |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 4 | 3.8 | | | |
| Spleen | + | | | | | | | | | | | | | | | | | | | | + | + | + | 49 | | | | | |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | 1 | | | | 3 | 4 | 2 | 31 | 2.6 |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | 4 | | 1 | 4.0 | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
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Experiment Number: 10034 - 04

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Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-----------|------------|------------|-------|
| | 0471 | 0728 | 0729 | 0641 | 0669 | 0755 | 0673 | 0540 | 0047 | 0053 | 0773 | 0573 | 0778 | 0668 | 0667 | 0764 | 0778 | 0552 | 0557 | 0778 | 0777 | 0777 | | | | | | | | | |
| ANIMAL ID | 06272 | 06281 | 06282 | 06291 | 06292 | 06811 | 06812 | 06813 | 06814 | 06815 | 06816 | 06817 | 06818 | 06819 | 06891 | 06892 | 06893 | 06894 | 06895 | 06896 | 06897 | 06898 | 06901 | 06902 | 06903 | 06904 | 06905 | 06906 | 06907 | 06908 | 06909 |
| Pigmentation | | 2 | 3 | 4 | | 2 | 2 | 2 | | 4 | 2 | 3 | | 3 | 1 | 2 | 1 | 4 | | 3 | 3 | | | | | | | 4 | 32 | 2.5 | |
| Capsule, Cyst | | | | | | | | | X | | | | | | | | | | | | | | | | | | | | 1 | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 49 | | |
| Atrophy | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 47 | 3.9 | |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | | | |
| Epithelial Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | | |
| INTEGUMENTARY SYSTEM | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 | | |
| Atypical Focus | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 7 | 2.6 | |
| Hyperplasia, Lobular | 1 | | 4 | 3 | | 4 | 4 | 4 | 2 | 3 | 3 | 4 | 2 | 4 | | 3 | | | | 4 | 4 | 3 | | | | 4 | | 36 | 3.3 | | |
| Alveolus, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | 3 | 1.7 | |
| Duct, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | | 7 | 2.1 | |
| Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 | | |
| Skin | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | + | | | | | | + | | + | | | + | + | | + | | | | | | | | | | | | | 16 | | | |
| Inflammation, Suppurative | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Inflammation, Granulomatous | | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | 1 | 4.0 | |
| Metaplasia, Osseous | | | | | | | | | | | | | | 3 | | | | | | | | | | | | | | | 1 | 3.0 | |
| Ulcer | | | | | | | 4 | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 | |
| Epithelium, Foot, Hyperplasia | 4 | | | | | | | | | | 4 | | | | | | | | | | | | | | | | | 10 | 4.0 | | |
| Foot, Edema | 4 | | | | | | | | | | | | | | | | | | | | | | | | | | | 8 | 3.4 | | |
| Foot, Fibrosis | 4 | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | 10 | 4.0 | | |
| Foot, Inflammation, Chronic Active | 4 | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | 10 | 4.0 | | |
| Foot, Necrosis | 4 | | | | | | | | | | | | | 4 | | | | | | | | | | | | | | 7 | 4.0 | | |
| Foot, Ulcer | 4 | | | | | | | | | | | | 4 | | | | | | | | | | | | | | | 10 | 3.9 | | |

MUSCULOSKELETAL SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
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|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|------|------|------|
| | 0471 | 0728 | 0729 | 0641 | 0669 | 0752 | 0569 | 0673 | 0540 | 0457 | 0553 | 0773 | 0588 | 0728 | 0667 | 0661 | 0667 | 0774 | 0778 | 0552 | | 0557 | 0778 | 0777 |
| ANIMAL ID | 06272 | 0681 | 0682 | 0661 | 0662 | 0681 | 0681 | 0688 | 0688 | 0688 | 0688 | 0688 | 0688 | 0688 | 0688 | 0688 | 0688 | 0688 | 0688 | 0688 | 0688 | 0688 | 0688 | |
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Compression | | 1 | | 4 | | 1 | 2 | 1 | | | | 4 | | | | | 3 | | | 3 | | | | 17 2.4 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 2 2.5 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Hemorrhage | | | | | | | | | | | 1 | | | | | | | | | | | | | 1 1.0 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Ventricle, Dilatation | | | | 2 | | | | | | | | | | | | | 1 | | | | | | | 5 1.6 |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | 3 2.0 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | 2 1.5 |
| Spinal Cord, Thoracic | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
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RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-------|-------|-------|
| | 0471 | 0728 | 0729 | 0641 | 0669 | 0755 | 0659 | 0673 | 0540 | 0547 | 0573 | 0573 | 0728 | 0667 | 0668 | 0666 | 0666 | 0774 | 0772 | 0521 | | 0557 | 0728 | 0777 |
| ANIMAL ID | 06272 | 06282 | 06292 | 06212 | 06222 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 | 06212 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | 1 | 8 | 9 | 1 | 9 | 5 | 9 | 3 | 0 | 7 | 3 | 7 | 3 | 8 | 7 | 1 | 6 | 7 | 4 | 8 | 1 | 7 | 7 | 7 |
| | 2 | 2 | 2 | 2 | 2 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | 7 | 8 | 8 | 9 | 9 | 2 | 2 | 3 | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 6 | 7 | 7 | 8 | 8 | 0 | 0 | 0 | 0 |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|--|---|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|--------|
| Lung | + | + | | + | + | | + | + | + | + | + | + | | + | + | + | + | | + | + | + | | 39 | |
| Fibrosis | | | | | | | | | | | | 3 | | | | | | | | | | | | 1 3.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | 2 3.0 |
| Infiltration Cellular, Histiocyte | | 2 | | 3 | | | | | | | 4 | | | | 3 | 2 | | | | 1 | 1 | | | 10 2.3 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | | | | 1 1.0 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Alveolar Epithelium, Hyperplasia | | | | | | | | | | | 3 | | | | | | | | | | | | | 1 3.0 |
| Nose | + | | | + | + | | + | + | + | + | + | | + | | + | + | + | + | | + | + | | 32 | |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Suppurative | | | | | | | | 2 | | | | | | | | | | | | | | | | 2 2.5 |
| Inflammation, Chronic Active | | | | | | | | | | | | | 4 | | | | | | | | | | | 1 4.0 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | 1 | | | 2 | | | | 4 | | | | | | | | | 4 2.0 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | 1 | | | | | | | | | | | | | | 1 1.0 |
| Respiratory Epithelium, Hyperplasia, Goblet Cell | | | | | | | | 2 | | | | 2 | | | | | | | | | | | | 3 2.0 |
| Trachea | + | | | + | + | | + | + | + | + | + | | + | | + | + | + | + | | + | + | | 32 | |

SPECIAL SENSES SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|-------------------------|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|-------|
| Eye | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Cataract | | | | | | | | 4 | | | | | | | | | | | | | | | | 1 4.0 |
| Anterior Chamber, Edema | | | | | | | | 4 | | | | | | | | | | | | | | | | 1 4.0 |
| Retina, Degeneration | | | | | | | | 4 | | | | | | | | | | | | | | | | 1 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 2500.StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | | |
|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|----|----|
| | 04 | 07 | 07 | 06 | 06 | 07 | 05 | 06 | 05 | 04 | 05 | 07 | 05 | 07 | 06 | 06 | 06 | 07 | 07 | 05 | | 05 | 07 | 07 |
| ANIMAL ID | 06 | 06 | 06 | 06 | 06 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 09 | 09 |
| | 22 | 22 | 22 | 22 | 22 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 11 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 | 19 |
| | 78 | 88 | 89 | 99 | 92 | 21 | 22 | 33 | 34 | 44 | 55 | 66 | 66 | 66 | 66 | 77 | 77 | 88 | 88 | 88 | 88 | 88 | 88 | 88 |
| | 21 | 22 | 21 | 21 | 21 | 12 | 11 | 21 | 12 | 11 | 21 | 12 | 11 | 21 | 12 | 11 | 21 | 12 | 11 | 21 | 12 | 11 | 21 | 12 |

URINARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Kidney | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 50 |
| Casts Protein | | | | 2 | | 2 | | | | | | | | | | | | | | 1 | | | | 5 1.4 |
| Infarct | | | X | | | | | | | | | | | | | | | | | | | | | 1 |
| Infiltration Cellular, Polymorphonuclear | | 1 | | | | | | | | | | 1 | | | | | | | | | | | | 3 1.0 |
| Mineralization | | 2 | | 2 | | | | | 1 | 2 | 2 | | 2 | | 1 | 1 | 2 | 1 | 1 | | | 3 | 1 | 23 1.7 |
| Nephropathy | 1 | 3 | 2 | | 1 | | | 2 | 3 | 4 | | 4 | | 4 | 1 | 1 | 1 | | 1 | 2 | 1 | 1 | 2 | 33 1.9 |
| Cortex, Cyst | | | | | | | | | | X | X | | X | | | | X | | X | | | | | 8 |
| Renal Tubule, Cyst | | X | | | | | | X | | X | X | | X | | | X | | X | | X | | | | 16 |
| Transitional Epithelium, Hyperplasia | | 1 | | | | | 1 | | | | | | | | | | | | | | | | | 4 1.0 |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Congestion | | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|----------------------|-------|-------|-------|-------|
| | 0727 | 0653 | 0673 | 0678 | 0676 | 0677 | 0677 | 0661 | 0671 | 0673 | 0654 | 0674 | 0677 | 0666 | 0666 | 0655 | 0677 | 0666 | 0666 | 0677 | | | 0655 | 0677 | 0666 | 0649 |
| | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---|
| Esophagus | + | | | | | | | | | | | | | | | | | | | | |
| Intestine Large, Colon | + | | | | | | | | | | | | | | | | | | | | |
| Intestine Small, Ileum | + | | | | | | | | | | | | | | | | | | | | |
| Liver | + | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | 2 |
| Basophilic Focus | X | | | | | | | | | | | | | | | | | | | | X |
| Clear Cell Focus | X | | | | | | | | | | | | | | | | | | | | X |
| Degeneration, Cystic | 1 | | | | | | | | | | | | | | | | | | | | 1 |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | |
| Fatty Change | 3 | | | | | | | | | | | | | | | | | | | | 2 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | 1 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | X |
| Infiltration Cellular, Mononuclear Cell | 2 | | | | | | | | | | | | | | | | | | | | 1 |
| Inflammation, Chronic Active | 2 | | | | | | | | | | | | | | | | | | | | 2 |
| Mixed Cell Focus | | | | | | | | | | | | | | | | | | | | | X |
| Tension Lipidosis | 4 | | | | | | | | | | | | | | | | | | | | 3 |
| Vacuolization Cytoplasmic | 2 | | | | | | | | | | | | | | | | | | | | 2 |
| Bile Duct, Hyperplasia | 3 | | | | | | | | | | | | | | | | | | | | 1 |
| Biliary Tract, Fibrosis | 1 | | | | | | | | | | | | | | | | | | | | 1 |
| Hepatocyte, Necrosis | 3 | | | | | | | | | | | | | | | | | | | | 2 |
| Oval Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | 2 |
| Mesentery | | | | | | | | | | | | | | | | | | | | | + |
| Fat, Necrosis | | | | | | | | | | | | | | | | | | | | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
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Experiment Number: 10034 - 04
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | | | | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|------|------|------|
| | 0727 | 0653 | 0673 | 0678 | 0676 | 0677 | 0677 | 0665 | 0675 | 0670 | 0688 | 0688 | 0660 | 0672 | 0661 | 0666 | 0655 | 0670 | 0666 | 0666 | | | 0675 | 0677 | 0662 | 0675 |
| | 0200 | 0200 | 0201 | 0201 | 0201 | 0201 | 0202 | 0202 | 0202 | 0202 | 0204 | 0204 | 0204 | 0204 | 0204 | 0204 | 0204 | 0204 | 0204 | 0204 | 0206 | 0206 | 0206 | 0206 | 0206 | 0206 |
| | 901 | 902 | 901 | 901 | 901 | 901 | 902 | 902 | 903 | 903 | 905 | 905 | 906 | 906 | 907 | 907 | 908 | 908 | 909 | 909 | 911 | 911 | 911 | 912 | 912 | 913 |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Oral Mucosa | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pancreas | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Infiltration Cellular, Lymphocyte | 2 2 2 2 2 1 2 1 2 1 1 2 2 2 2 2 2 2 2 2 4 4 1 1 2 2 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Chronic Active | 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lipomatosis | 3 4 3 3 3 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pigmentation | 1 1 2 1 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Acinus, Degeneration | 3 4 3 4 4 2 1 1 2 2 2 2 2 2 2 2 2 2 2 2 4 4 1 1 2 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Forestomach | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cyst Epithelial Inclusion | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Edema | 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Epithelium, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Stomach, Glandular | + | | | | | | | | | | | | | | | | | | | | | | | | | |

CARDIOVASCULAR SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Blood Vessel | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Heart | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Cardiomyopathy | 3 1 1 1 1 2 3 1 1 2 2 1 2 2 3 1 2 2 2 2 1 2 2 2 2 2 2 | | | | | | | | | | | | | | | | | | | | | | | | | |

ENDOCRINE SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|-------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
| Adrenal Cortex | + | | | | | | | | | | | | | | | | | | | | | | | | | |
| Angiectasis | 2 2 2 2 3 2 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
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 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
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 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | females
(cont...) | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|-------|-------|-------|-------|-------|-------|
| | 0727 | 0653 | 0673 | 0678 | 0676 | 0677 | 0677 | 0661 | 0675 | 0677 | 0684 | 0688 | 0688 | 0660 | 0621 | 0665 | 0666 | 0655 | 0670 | 0666 | | 0675 | 0677 | 0662 | 0675 | 0664 | 0679 |
| ANIMAL ID | 02091 | 02290 | 02201 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 | 02211 |
| Cyst | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Degeneration, Cystic | | 4 | 2 | 2 | 1 | 3 | 4 | | 2 | 2 | | | | | 1 | | | 3 | 2 | | | 3 | 4 | 2 | | | |
| Hyperplasia | | | | | | | | | | | | | | | 1 | | 1 | | 2 | | | 4 | | | | | |
| Hypertrophy | | | | 3 | | | | | | | | | 2 | 3 | | | | | | | | | | | | | |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | | | | | | | 3 |
| Vacuolization Cytoplasmic | | | | | | | | | | | | 4 | | | | | 2 | | | | | | | | | | 2 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | 1 | | | | | | | | | 2 | | | | | | | | | |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | | | | 2 | | | | | 2 | | | | | | | | | | | | | |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hyperplasia | | | | | | 1 | | | | | 2 | | | | | | 1 | | | | 1 | | | | | | |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Angiectasis | 3 | | | | | | 4 | | | | 3 | | 2 | | 2 | | | | | | | 3 | 4 | | 4 | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Pars Distalis, Cyst | | | | | | | X | | | | | | | | | | | | | | | | | | X | X | |
| Pars Distalis, Hyperplasia | | 4 | | 1 | | | 4 | | 2 | 3 | 4 | | 2 | | 4 | | 4 | | | | | | 4 | | | 4 | |
| Pars Distalis, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Ultimobranchial Cyst | | | | | | X | | | | | | | | | | | | | | | | | | | | | |
| C-cell, Hyperplasia | 1 | 2 | 3 | | 3 | | | | 2 | 2 | 2 | | | | 2 | | 2 | 2 | | | 1 | 1 | 1 | | | 1 | |
| Follicular Cell, Cyst | | | | | | | | | | | | | | | | X | | | | | | | | | | | |
| Follicular Cell, Hyperplasia | | | | | | | | | | 3 | 2 | | | | | | | | | | | | | | | | |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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I .. Insufficient tissue
M .. Missing tissue
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BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
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Test Type: CHRONIC

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Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

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Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | 0727 | 0653 | 0673 | 0678 | 0677 | 0677 | 0661 | 0677 | 0635 | 0644 | 0677 | 0677 | 0666 | 0666 | 0655 | 0677 | 0666 | 0666 | 0677 | 0655 | 0677 | 0666 | 0644 | females
(cont...) |
| | ANIMAL ID | 02091 | 02090 | 02001 | 02011 | 02011 | 02011 | 02011 | 02011 | 02023 | 02033 | 02055 | 02066 | 02066 | 02077 | 02088 | 02088 | 02099 | 02099 | 02099 | 02099 | 02099 | 02099 | 02099 | |

Tissue NOS

GENITAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|
| Clitoral Gland | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperkeratosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Inflammation, Suppurative | | | | 3 | | | | 3 | | | | | | | | | | | | | 4 | | | | 4 | |
| Duct, Dilatation | | | | 4 | | | | 4 | | | | | | | 4 | | | | | | 4 | | | | 4 | |
| Ovary | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | 2 | 2 | 3 | 3 | 2 | 3 | 3 | 2 | 2 | 4 | 4 | 2 | 3 | 3 | 4 | 2 | 2 | 3 | | 2 | 2 | 3 | 3 | 2 | 2 | |
| Cyst | | | | | | | | | | | | | X | | | | | | | | | X | | | | |
| Hyperplasia, Sertoliform | | | | 3 | | | | | 1 | | | | | | 2 | | | | | 1 | | | | | | |
| Bilateral, Follicle, Cyst | | | X | | | | | | | | | | | | | | | | | | | | | | | |
| Follicle, Cyst | | | | | | | X | | X | | X | | | | | | | | | | | | | | | |
| Granulosa Cell, Hyperplasia | 4 | | | | | | 3 | | | | | | | | | | | | | | | | | | | |
| Oviduct | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Uterus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | | |
| Adenomyosis | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Atrophy | 3 | | 3 | | | | | | | | | | | | | | 3 | 3 | | 3 | | 3 | 3 | | | |
| Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Metaplasia, Squamous | | | | | | | | | | 1 | | | | | 1 | | | | | | | | | | | |
| Endometrial Glands, Hyperplasia | | | | | | | 2 | | | | | | | | | | | | | | | | | | | |
| Endometrium, Cyst | | | | | | | | | | | X | | | | | | | | | | | | | | | |
| Endometrium, Hyperplasia | | | | | | | 3 | 2 | | | | | | | 2 | | | | | | | | | | | |
| Endometrium, Hyperplasia, Cystic | 1 | 2 | | 2 | | | | | 2 | 3 | 4 | 1 | | 2 | 1 | 4 | | | | 2 | | | 2 | 2 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | ANIMAL ID | females
(cont...) | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|----------------------|------|
| | 0727 | 0653 | 0673 | 0678 | 0676 | 0677 | 0677 | 0665 | 0671 | 0677 | 0673 | 0654 | 0674 | 0677 | 0666 | 0666 | 0655 | 0677 | 0666 | 0666 | 0677 | 0657 | 0676 | 0664 | | | 0678 |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 020091 | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | |
| Atrophy | | | | | | | | | | | | | | | | | | | | 4 | | | | | | |
| Infiltration Cellular, Polymorphonuclear Epithelium, Degeneration | | | | | | | | | | | | | | | | | 2 | 3 | 4 | | | | 4 | 3 | | |
| Epithelium, Hyperplasia | | | | | | | | | | 4 | 3 | | | | | 4 | | | | | | | 3 | | | |
| Epithelium, Mucification | 4 | 3 | 2 | 3 | 4 | 4 | 4 | 3 | 4 | | | 4 | 4 | 2 | | | 3 | 3 | 3 | | 3 | 2 | | | 4 | 4 |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | 4 | | |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone Marrow Hypocellularity | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + |
| | | | | | | | 3 | | | | | | | | | | | | | | | | 4 | | | |
| Lymph Node Axillary, Degeneration, Cystic | + | | + | | | | | | | | | | | | | | | | | + | | + | | | | |
| Lumbar, Degeneration, Cystic | 4 | | 4 | | | | | | | | | | | | | | | | | | | | | | | |
| Renal, Degeneration, Cystic | 4 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mandibular Degeneration, Cystic | 3 | | | | | | | | | | | | | | | | | | | | | | | | | |
| Lymph Node, Mesenteric | | | | | | | | | | | | | | | | | | | | | | | | | | + |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------------------|
| | 0727 | 0653 | 0673 | 0678 | 0676 | 0677 | 0677 | 0666 | 0675 | 0670 | 0688 | 0688 | 0666 | 0670 | 0677 | 0666 | 0655 | 0677 | 0666 | 0677 | 0655 | 0677 | 0666 | 0644 | |
| ANIMAL ID | 0200 | 0200 | 0201 | 0201 | 0201 | 0201 | 0202 | 0202 | 0202 | 0202 | 0204 | 0204 | 0204 | 0204 | 0204 | 0204 | 0204 | 0204 | 0204 | 0206 | 0206 | 0206 | 0206 | 0206 | |
| | 91 | 92 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 01 | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 | 02 | |

| | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----|
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Fibrosis | | | | | | | | | | | | | | | | | | | | 4 | | | | |
| Hematopoietic Cell Proliferation | 2 | 2 | | | | 4 | 2 | 2 | 1 | 3 | 2 | 2 | 4 | 3 | 2 | 1 | 2 | 4 | | | 3 | 2 | | 4 3 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | |
| Necrosis | | | | | | | | | | | | | | | | | | | | 4 | | | | |
| Pigmentation | 2 | 2 | 3 | 3 | | | 2 | 2 | | 1 | 2 | 2 | | 2 | 3 | 1 | 1 | | | 3 | | 3 | 4 | 3 3 |
| Polyarteritis | | | | | | | | | | | | | | | | | | | | | | | | |
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atrophy | 4 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | 4 | 4 | 4 | 4 | 4 |
| Epithelial Cell, Hyperplasia | | | | | | | | | | | | | | | 4 | | | | | | | | | |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|---|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Atypical Focus | | | | | | | | | | | | | | | | | | | | | | | | |
| Hyperplasia, Lobular | 3 | 2 | 4 | 2 | 3 | 4 | 4 | 3 | 3 | 2 | 2 | | 4 | 4 | 1 | 4 | 1 | 4 | 2 | | 4 | 4 | 3 4 4 | |
| Alveolus, Dilatation | | | | | | | | | | 2 | 2 | | | | 2 | | 1 | | | | | | | |
| Duct, Dilatation | | | 2 | | | | 2 | | | 2 | 2 | | | | 3 | | | | 2 | | | | 3 | |
| Duct, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | | | |
| Skin | | | | | | + | | | + | | | | | | | + | | | | + | | | | |
| Epithelium, Foot, Hyperplasia | | | | | | 4 | | | 4 | | | | | | | 4 | | | | 4 | | | 4 | |
| Foot, Cyst Epithelial Inclusion | | | | | | X | | | | | | | | | | | | | | | | | | |
| Foot, Edema | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Foot, Fibrosis | | | | | | 4 | | | 4 | | | | | | | 4 | | | | 4 | | | 4 | |
| Foot, Inflammation, Chronic Active | | | | | | 4 | | | 4 | | | | | | | 4 | | | | 4 | | | 4 | |
| Foot, Necrosis | | | | | | | | | | | | | | | | | | | | | | | | 4 |
| Foot, Ulcer | | | | | | | | | | | | | | | | 4 | | | | | | | | 4 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | DAY ON TEST | | | | | | | | | | | | | | | | | | | | | | | | females
(cont...) | |
|--|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------------------|-------|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | | 0727 | 0653 | 0673 | 0678 | 0677 | 0677 | 0662 | 0672 | 0651 | 0677 | 0635 | 0654 | 0674 | 0677 | 0666 | 0666 | 0655 | 0677 | 0666 | 0666 | 0677 | 0655 | 0677 | 0666 | | 0644 |
| ANIMAL ID | | 02091 | 02092 | 02091 | 02090 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | | 02091 |
| | | 7 | 6 | 6 | 7 | 6 | 7 | 7 | 6 | 7 | 3 | 5 | 4 | 7 | 7 | 6 | 6 | 5 | 7 | 6 | 6 | 7 | 5 | 7 | 6 | 4 | |
| | | 2 | 5 | 7 | 2 | 6 | 2 | 2 | 5 | 0 | 8 | 8 | 6 | 0 | 2 | 1 | 5 | 5 | 0 | 2 | 7 | 2 | 6 | 2 | 7 | 9 | |
| | | 7 | 3 | 3 | 8 | 6 | 7 | 7 | 1 | 7 | 4 | 3 | 4 | 3 | 9 | 6 | 2 | 9 | 1 | 2 | 9 | 3 | 7 | 5 | 8 | | |
| | | 02091 | 02092 | 02091 | 02090 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | 02091 | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Osteopetrosis | 4 | | | | | | | | | | | | | | | | | | | | | | | | |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | | | | + |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Compression | | | 3 | | | 1 | | | 3 | | | | | | | | | 2 | 3 | | 2 | 3 | | 4 | |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | | | |
| Ventricle, Dilatation | | | 1 | | | | | | 2 | | | | | | | | | | | | | | 1 | | |
| Nerve Trigeminal | | | | | | | | | | | | | | | | | | | | | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Sciatic | | | | | | | | | | | | | | | | | | | | | | | | | |
| Peripheral Nerve, Tibial | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Cervical | | | | | | | | | | | | | | | | | | | | | | | | | |
| Spinal Cord, Lumbar | | | | | | | | | | | | | | | | | | | | | | | | | |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | | | | | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | | | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------|-------|-------|-------|-------|-----------------|
| | 0727 | 0447 | 0549 | 0728 | 0598 | 0435 | 0446 | 0446 | 0776 | 0437 | 0748 | 0346 | 0477 | 0663 | 0770 | 0776 | 0665 | 0554 | 0663 | 0667 | | | | | | |
| | 06432 | 06441 | 06444 | 06444 | 06455 | 08621 | 08622 | 08622 | 08622 | 08622 | 08622 | 08622 | 08622 | 08622 | 08622 | 08622 | 08622 | 08622 | 08622 | 08622 | 11111 | 11111 | 11111 | 11111 | 11111 | |
| | 32 | 41 | 44 | 45 | 55 | 66 | 67 | 77 | 78 | 88 | 89 | 90 | 91 | 92 | 93 | 94 | 95 | 96 | 97 | 98 | 000 | 000 | 000 | 000 | 000 | |
| | | | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

ALIMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|---------------|
| Esophagus | + | | | | | | | | | | | | | | | | | | | | | 33 |
| Intestine Large, Colon | + + + A + | | | | | | | | | | | | | | | | | | | | | 33 |
| Intestine Small, Ileum | + | | | | | | | | | | | | | | | | | | | | | 33 |
| Liver | + | | | | | | | | | | | | | | | | | | | | | 46 |
| Angiectasis | | | | | | | | | | | | | | | | | | | | | | 3 2.3 |
| Basophilic Focus | | | | | | | | | | | | | | | | | | | | | | 23 |
| Clear Cell Focus | X X | | | | | | | | | | | | | | | | | | | | | 9 |
| Degeneration, Cystic | 1 1 | | | | | | | | | | | | | | | | | | | | | 7 1.0 |
| Eosinophilic Focus | | | | | | | | | | | | | | | | | | | | | | 1 |
| Fatty Change | 3 2 2 2 | | | | | | | | | | | | | | | | | | | | | 15 2.5 |
| Hematopoietic Cell Proliferation | | | | | | | | | | | | | | | | | | | | | | 2 1.0 |
| Hepatodiaphragmatic Nodule | | | | | | | | | | | | | | | | | | | | | | 4 |
| Infiltration Cellular, Mononuclear Cell | 1 1 1 1 2 1 1 2 2 1 1 1 1 | | | | | | | | | | | | | | | | | | | | | 31 1.3 |
| Inflammation, Chronic Active | 1 | | | | | | | | | | | | | | | | | | | | | 4 1.8 |
| Mixed Cell Focus | X | | | | | | | | | | | | | | | | | | | | | 4 |
| Tension Lipidosis | 3 2 4 4 3 3 | | | | | | | | | | | | | | | | | | | | | 10 3.4 |
| Vacuolization Cytoplasmic | 2 2 3 2 4 2 | | | | | | | | | | | | | | | | | | | | | 12 2.2 |
| Bile Duct, Hyperplasia | 1 2 2 1 1 1 1 1 2 2 | | | | | | | | | | | | | | | | | | | | | 17 1.7 |
| Biliary Tract, Fibrosis | 2 1 1 1 1 1 1 1 | | | | | | | | | | | | | | | | | | | | | 8 1.3 |
| Hepatocyte, Necrosis | | | | | | | | | | | | | | | | | | | | | | 3 2.3 |
| Oval Cell, Hyperplasia | 2 | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Mesentery | + | | | | | | | | | | | | | | | | | | | | | 3 |
| Fat, Necrosis | 3 | | | | | | | | | | | | | | | | | | | | | 3 3.7 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
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Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

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Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | ANIMAL ID | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---|---|-----------------|
| | 7 | 4 | 5 | 7 | 5 | 4 | 4 | 4 | 7 | 4 | 3 | 4 | 7 | 6 | 7 | 7 | 6 | 5 | 6 | 6 | | | 7 | 7 |
| | 2 | 4 | 9 | 2 | 9 | 3 | 4 | 6 | 2 | 7 | 9 | 8 | 2 | 3 | 0 | 2 | 6 | 1 | 0 | 5 | 2 | 7 | 0 | |
| | 7 | 7 | 4 | 8 | 8 | 5 | 6 | 3 | 7 | 0 | 4 | 6 | 7 | 5 | 0 | 6 | 5 | 4 | 3 | 7 | 7 | | 6 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 6 | |
| | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | |
| | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | |
| | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | |
| | | | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

Oral Mucosa 1

Pancreas 46

Basophilic Focus X 2

Infiltration Cellular, Lymphocyte 2 2 1 1 1 2 2 1 2 2 2 3 2 1 1 3 30 1.7

Inflammation, Chronic Active 2 2 2.0

Lipomatosis 4 6 3.5

Pigmentation 1 2 8 1.3

Acinus, Degeneration 3 1 2 1 3 2 3 3 1 4 2 2 4 2 2 1 3 34 2.4

Stomach, Forestomach 34

Cyst Epithelial Inclusion 2

Edema 1 2.0

Necrosis 4 1 4.0

Epithelium, Hyperplasia 1 2.0

Stomach, Glandular 32

CARDIOVASCULAR SYSTEM

Blood Vessel 46

Heart 46

Cardiomyopathy 2 1 1 2 3 1 1 2 3 2 1 1 2 1 1 35 1.7

ENDOCRINE SYSTEM

Adrenal Cortex 46

Angiectasis 2 2 4 2 10 2.3

Atrophy 3 1 3.0

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

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Bisphenol A

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First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|----------|-----|
| | 0727 | 0447 | 0597 | 0728 | 0598 | 0445 | 0446 | 0446 | 0727 | 0437 | 0447 | 0726 | 0776 | 0776 | 0665 | 0554 | 0663 | 0667 | 0727 | 0727 | | |
| ANIMAL ID | 06432 | 06441 | 06444 | 06455 | 06682 | 06682 | 06688 | 06688 | 06688 | 06688 | 06688 | 06688 | 06688 | 06688 | 06688 | 06688 | 06688 | 06688 | 06688 | 06688 | | |
| Cyst | | | | | | | | | | | | | | | | | | | X | | 1 | |
| Degeneration, Cystic | 2 | | 2 | 3 | | | | | 2 | | | 4 | 1 | 4 | 2 | 3 | 2 | | 2 | | 25 | 2.5 |
| Hyperplasia | | | | 2 | | | | | 1 | | | | | | | | | | | 1 | 7 | 1.7 |
| Hypertrophy | 2 | | | | | | | | | | | | | | | | | | | | 4 | 2.5 |
| Metaplasia, Osseous | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Vacuolization Cytoplasmic | 3 | 2 | | | 1 | | | | | | | | | | | | | | | | 6 | 2.3 |
| Adrenal Medulla | + | + | + | + | + | + | + | + | + | M | + | + | + | + | + | + | + | + | + | + | 45 | |
| Hyperplasia | | | | 2 | | | | | | | | 1 | | 3 | | | | | | | 5 | 1.8 |
| Islets, Pancreatic | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Hyperplasia | | | | | | | | | | | | | | | | | | | | | 2 | 2.0 |
| Parathyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Hyperplasia | | | | 2 | | | | | 1 | | | | | | | | | | 1 | | 7 | 1.3 |
| Pituitary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Angiectasis | | | | | | | 4 | | | | | | | | | | | 3 | | 3 | 11 | 3.2 |
| Fibrosis | | | | | | | | | | | | | 3 | | | | | | | | 1 | 3.0 |
| Pars Distalis, Cyst | | X | | | | | | | | | | | | | | | | | | | 4 | |
| Pars Distalis, Hyperplasia | | 3 | | | | | | 4 | 3 | 4 | 4 | 3 | | | | 2 | 3 | 3 | | 3 | 21 | 3.2 |
| Pars Distalis, Vacuolization Cytoplasmic | | | | | | | | | | | | | | | | | | 4 | | | 1 | 4.0 |
| Thyroid Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | |
| Ultimobranchial Cyst | | X | | | X | | | | | | | | | | | | | | | | 3 | |
| C-cell, Hyperplasia | 1 | | 1 | 1 | 1 | | | | | 2 | 2 | 2 | 1 | | | | 1 | | 2 | | 24 | 1.6 |
| Follicular Cell, Cyst | | | | | | | | | | | | | | | | | | | | | 1 | |
| Follicular Cell, Hyperplasia | | 2 | | | | | | | | | | | | | 2 | | | | | | 4 | 2.3 |

GENERAL BODY SYSTEM

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically
 X .. Lesion present
 I .. Insufficient tissue
 M .. Missing tissue
 A .. Autolysis precludes evaluation
 BLANK .. Not examined microscopically
 1-4 .. Lesion qualified as:
 1) Minimal 3) Moderate
 2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | | | | | | |
|--|-------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|---|-----------------|---|---|--|--|
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | | | | | | | |
| | 7 | 4 | 5 | 7 | 5 | 4 | 4 | 4 | 7 | 4 | 3 | 4 | 7 | 6 | 7 | 7 | 6 | 5 | 6 | 6 | 7 | 6 | 6 | 6 | 7 | | |
| | 2 | 4 | 9 | 2 | 9 | 3 | 4 | 6 | 2 | 7 | 9 | 8 | 2 | 3 | 0 | 2 | 6 | 1 | 0 | 5 | 2 | 4 | 4 | 4 | 4 | | |
| | 7 | 7 | 4 | 8 | 8 | 5 | 6 | 3 | 7 | 0 | 4 | 6 | 7 | 5 | 0 | 6 | 5 | 4 | 3 | 7 | 7 | | | | | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | | |
| | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | | |
| | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 3 | 3 | 1 | 1 | | |
| | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 | 1 | 1 | 1 | 1 | | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2 | 2 | 2 | | |
| | | | | | | | | | | | | | | | | | | | | | | | * TOTALS | | | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|-----|-----|
| Vagina | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | | |
| Atrophy | | | | | | | | | | | | | 4 | | | | | | | | | | | | 2 | 4.0 |
| Infiltration Cellular, Polymorphonuclear | | | 2 | 4 | 2 | | | | | | | | | | | | | | | | | | | | 8 | 3.0 |
| Epithelium, Degeneration | | | 3 | 3 | | | | | | | | | | | | | | | | | | | | | 3 | 3.0 |
| Epithelium, Hyperplasia | | | | | 3 | | 3 | | | 3 | | | | | | | | | | | | | | | 7 | 3.3 |
| Epithelium, Mucification | 3 | 4 | | 1 | | | 2 | 4 | 3 | | | 3 | 4 | | 4 | 4 | 4 | 4 | 4 | 2 | 3 | | | 34 | 3.3 | |
| Lumen, Dilatation | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |

HEMATOPOIETIC SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|----|----|---|-----|
| Bone Marrow | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 45 | | | |
| Hypocellularity | | | | | | | 4 | | | | | | | | | | | | | | | | | | 3 | 3.7 |
| Lymph Node | + | | + | | + | | + | | | | | | + | | | + | | | | | | | | 11 | | |
| Axillary, Degeneration, Cystic | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Axillary, Hyperplasia, Lymphoid | 2 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 2.0 |
| Axillary, Infiltration Cellular, Plasma Cell | 4 | | | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Lumbar, Degeneration, Cystic | | | | | | | | | | | | | | 2 | | | | | | | | | | | 3 | 3.3 |
| Lumbar, Hyperplasia, Lymphoid | | | | | | | | | 3 | | | | | 2 | | | 3 | | | | | | | | 6 | 3.2 |
| Lumbar, Infiltration Cellular, Plasma Cell | | | | | | | | 4 | | | | | | 3 | | | 3 | | | | | | | | 5 | 3.6 |
| Renal, Degeneration, Cystic | | | 4 | | | | | | | | | | | | | | | | | | | | | | 2 | 4.0 |
| Renal, Pigmentation | | | | | | | | | | | | | | | | | | | | | | | | | 1 | 3.0 |
| Lymph Node, Mandibular | | | | | | | + | | | + | | | | | | | | | | | | | | 5 | | |
| Degeneration, Cystic | | | | | | | | | | 4 | | | | | | | | | | | | | | | 3 | 3.3 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.5 |
| Infiltration Cellular, Plasma Cell | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 3.5 |
| Lymph Node, Mesenteric | | | | | | | + | | | | | | | | | | | | | | | | | 2 | | |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|--|-------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-----------------|--|
| | 0727 | 0447 | 0549 | 0728 | 0578 | 0453 | 0446 | 0446 | 0726 | 0477 | 0349 | 0472 | 0633 | 0770 | 0776 | 0665 | 0554 | 0660 | 0663 | 0777 | | |
| | 06432 | 06441 | 06444 | 06444 | 06444 | 08262 | 08822 | 08822 | 08822 | 08822 | 08822 | 08822 | 08822 | 08822 | 08822 | 08822 | 08822 | 08822 | 08822 | 08822 | | |
| | | | | | | | | | | | | | | | | | | | | | * TOTALS | |

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|------------|
| Spleen | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Fibrosis | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |
| Hematopoietic Cell Proliferation | | 3 | 3 | 2 | 2 | | | 1 | 2 | | | 3 | 1 | 2 | | | 2 | 1 | 4 | 2 | | 32 | 2.4 |
| Hyperplasia, Lymphoid | | | | | | | | | | | | | | | | | 2 | | | | | 1 | 2.0 |
| Necrosis | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 4.0 |
| Pigmentation | 1 | 2 | 2 | 1 | 4 | | 4 | 1 | 2 | 3 | 2 | | | 2 | 3 | 1 | | | | 1 | | 32 | 2.2 |
| Polyarteritis | | | | | | | | | 1 | | | | | | | | | | | | | 1 | 1.0 |

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|------------|
| Thymus | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Atrophy | 4 | 3 | 4 | 4 | 4 | | 4 | 3 | 4 | 3 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | 4 | | 42 | 3.9 |
| Epithelial Cell, Hyperplasia | | | | | | | | | | | | | | | | | | | | | | 1 | 4.0 |

INTEGUMENTARY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|----------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-----------|-----------|------------|
| Mammary Gland | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 | | |
| Atypical Focus | | | 1 | | | | | | | | 2 | | | | | | | | | | | 5 | 1.6 |
| Hyperplasia, Lobular | 4 | 4 | 2 | 4 | 2 | | | 2 | 3 | | | 2 | | | 4 | 2 | 4 | 4 | 3 | 3 | | 38 | 3.1 |
| Alveolus, Dilatation | | | | 2 | 2 | | | 2 | | | | | | | | | | | | | | 7 | 1.9 |
| Duct, Dilatation | | | 3 | | 2 | | | 2 | 3 | | | | | | | | | | | | | 11 | 2.4 |
| Duct, Hyperplasia | | | | | | | | 3 | | | | | | | | | | | | | | 1 | 3.0 |

| | | | | | | | | | | | | | | | | | | | | | | | |
|------------------------------------|---|---|---|---|--|--|--|---|--|--|--|---|---|---|--|--|--|--|--|---|-----------|-----------|------------|
| Skin | + | + | + | + | | | | + | | | | + | | + | | | | | | + | 12 | | |
| Epithelium, Foot, Hyperplasia | 4 | 4 | 4 | 4 | | | | 4 | | | | | | | | | | | | 4 | | 10 | 4.0 |
| Foot, Cyst Epithelial Inclusion | | | | | | | | | | | | | | | | | | | | | | 1 | |
| Foot, Edema | | | 4 | 4 | | | | | | | | | 4 | | | | | | | 4 | | 6 | 4.0 |
| Foot, Fibrosis | 4 | 4 | 4 | 4 | | | | 4 | | | | | 4 | | | | | | | 4 | | 11 | 4.0 |
| Foot, Inflammation, Chronic Active | 4 | 4 | 4 | 4 | | | | 4 | | | | | 4 | | | | | | | 4 | | 11 | 4.0 |
| Foot, Necrosis | 4 | | 4 | | | | | 4 | | | | | | | | | | | | 4 | | 6 | 4.0 |
| Foot, Ulcer | 4 | 4 | 4 | 4 | | | | 4 | | | | | | | | | | | | 4 | | 9 | 4.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
+ .. Tissue examined microscopically
X .. Lesion present
I .. Insufficient tissue
M .. Missing tissue
A .. Autolysis precludes evaluation
BLANK .. Not examined microscopically
1-4 .. Lesion qualified as:
1) Minimal 3) Moderate
2) Mild 4) Marked

Experiment Number: 10034 - 04

Test Type: CHRONIC

Route: GAVAGE

Species/Strain: RATS/Sprague Dawley (NCTR)

P09: NON-NEOPLASTIC LESIONS BY INDIVIDUAL ANIMAL

Bisphenol A

CAS Number: 80-05-7

2 Year Animals

Date Report Requested: 08/16/2017

Time Report Requested: 10:21:03

First Dose M/F: 09/25/12 / 09/25/12

Lab: NCTR

| | | | | | | | | | | | | | | | | | | | | | | |
|---|-------------|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | |
| | ANIMAL ID | 7 | 4 | 5 | 7 | 5 | 4 | 4 | 4 | 7 | 4 | 3 | 4 | 7 | 6 | 7 | 7 | 6 | 5 | 6 | 6 | 7 |
| | | 2 | 4 | 9 | 2 | 9 | 3 | 4 | 6 | 2 | 7 | 9 | 8 | 2 | 3 | 0 | 2 | 6 | 1 | 0 | 5 | 2 |
| | | 7 | 7 | 4 | 8 | 8 | 5 | 6 | 3 | 7 | 0 | 4 | 6 | 7 | 5 | 0 | 6 | 5 | 4 | 3 | 7 | 7 |
| | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | 6 | 6 | 6 | 6 | 6 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 8 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| | | 4 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 |
| | | 3 | 4 | 4 | 4 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 2 |
| | | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 |
| | | * TOTALS | | | | | | | | | | | | | | | | | | | | |

MUSCULOSKELETAL SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|-------|
| Bone, Femur | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Osteopetrosis | | | | | | | | | | | | | | | | | | | | | | 1 4.0 |
| Skeletal Muscle | | | | | | | | | | | | | | | | | | | | | | 2 |

NERVOUS SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | |
|---------------------------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--------|
| Brain, Brain Stem | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Compression | | | | 1 | 2 | 3 | | 4 | | | | | 3 | | | | | | | 3 | | 14 2.6 |
| Hemorrhage | | | | | | 2 | | | | | | | | | | | | | | | | 1 2.0 |
| Brain, Cerebellum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Brain, Cerebrum | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | + | 46 |
| Hemorrhage | | | | | | 2 | | | | 1 | | | | | | | | | | | | 2 1.5 |
| Ventricle, Dilatation | | | | | | 2 | | 2 | | | | | 1 | | | | | | | | | 6 1.5 |
| Nerve Trigeminal | | | | | | | | | | + | + | + | | | | | | | | + | | 4 |
| Axon, Degeneration | | | | | | | | | | 1 | | | | | | | | | | 1 | | 2 1.0 |
| Peripheral Nerve, Sciatic | | | | | | | | | | | + | + | + | | | | | | | + | | 4 |
| Peripheral Nerve, Tibial | | | | | | | | | | | | + | + | + | | | | | | + | | 4 |
| Spinal Cord, Cervical | | | | | | | | | | | | + | + | + | | | | | | + | | 4 |
| Spinal Cord, Lumbar | | | | | | | | | | | | | + | + | + | | | | | + | | 4 |
| Axon, Degeneration | | | | | | | | | | | | | | | | | | | | 1 | | 1 1.0 |

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
 + .. Tissue examined microscopically M .. Missing tissue 1-4 .. Lesion qualified as:
 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
 I .. Insufficient tissue BLANK .. Not examined microscopically 2) Mild 4) Marked

Experiment Number: 10034 - 04
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 Lab: NCTR

| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | ANIMAL ID | |
|--|-------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-----------|-----------------|
| | 0727 | 0447 | 0549 | 0728 | 0578 | 0443 | 0446 | 0044 | 0077 | 0043 | 0047 | 0066 | 0077 | 0077 | 0066 | 0055 | 0066 | 0066 | 0066 | 0077 | | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0644 | |
| | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 1 | 1 | 1 | 1 | 1 | 0444 | |
| | 3 | 4 | 4 | 5 | 5 | 6 | 6 | 7 | 7 | 8 | 8 | 9 | 9 | 0 | 0 | 0 | 1 | 1 | 1 | 2 | 3444 | |
| | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 1 | 2 | 2 | 2121 | |
| | | | | | | | | | | | | | | | | | | | | | | * TOTALS |

Spinal Cord, Thoracic + + + + 4

RESPIRATORY SYSTEM

| | | | | | | | | | | | | | | | | | | | | | | | |
|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----|---|-------|
| Lung | + | | | | | | | | | | | | | | | | | | | | 37 | | |
| Infiltration Cellular, Histiocyte | 3 | | | | | | | | | | | | | | | | | | | | 4 | 3 | 7 2.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | 1 | 4 | 1 2.0 |
| Inflammation, Chronic | | | | | | | | | | | | | | | | | | | | | 1 | 4 | 2 2.5 |
| Alveolar Epithelium, Hyperplasia | 3 | | | | | | | | | | | | | | | | | | | | 3 | | 3 2.3 |
| Nose | + | | | | | | | | | | | | | | | | | | | | 33 | | |
| Autolysis | | | | | | | | | | | | | | | | | | | | | 4 | | 1 4.0 |
| Foreign Body | | | | | | | | | | | | | | | | | | | | | | X | 1 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | 4 | | 1 4.0 |
| Inflammation, Suppurative | | | | | | | | | | | | | | | | | | | | | | 1 | 1 1.0 |
| Olfactory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | 3 1.3 |
| Respiratory Epithelium, Accumulation, Hyaline Droplet | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Respiratory Epithelium, Hyperplasia, Goblet Cell | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |
| Trachea | + | | | | | | | | | | | | | | | | | | | | 33 | | |

SPECIAL SENSES SYSTEM

Ear 1

URINARY SYSTEM

Kidney + 46

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade
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 X .. Lesion present A .. Autolysis precludes evaluation 1) Minimal 3) Moderate
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| SPRAGUE DAWLEY (NCTR)
RATS FEMALE
F1 25000StDose F | DAY ON TEST | | | | | | | | | | | | | | | | | | | | * TOTALS | | |
|--|-------------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----------|----|--------|
| | 07 | 04 | 05 | 07 | 05 | 04 | 04 | 04 | 07 | 04 | 03 | 04 | 07 | 06 | 07 | 07 | 06 | 05 | 06 | 06 | | 07 | |
| ANIMAL ID | 06 | 06 | 06 | 06 | 06 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 08 | 00 | 00 | 00 | 00 | 00 | 00 |
| Casts Protein | 1 | | | | | | | | | | | | | | | | | | | | | | 4 1.3 |
| Infarct | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Infiltration Cellular, Polymorphonuclear | | | | | | | | | | | | | | 2 | | | | | | | | | 1 2.0 |
| Mineralization | 1 | 1 | | 1 | | | 1 | 2 | | 2 | 1 | 2 | | 2 | | | | | | 1 | | 1 | 23 1.5 |
| Nephropathy | | 4 | 1 | 2 | 3 | | | | | 3 | 1 | | 1 | 2 | 4 | 1 | 2 | 4 | 3 | 1 | 1 | | 30 2.1 |
| Polyarteritis | | | | | | | | | | 2 | | | | | | | | | | | | | 1 2.0 |
| Polycystic Kidney | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Cortex, Cyst | | | | | | | | X | | | | | | | | X | | | | | | | 5 |
| Renal Tubule, Cyst | | X | | X | | | | | | X | | | | | | | X | X | X | | | | 11 |
| Transitional Epithelium, Hyperplasia | 1 | | | | | | | | | | | | | | | | | 1 | | | | | 8 2.0 |
| Urinary Bladder | | | | | | | | | | | | | | | | | | | | | | | 1 |
| Edema | | | | | | | | | | | | | | | | | | | | | | | 1 3.0 |
| Hemorrhage | | | | | | | | | | | | | | | | | | | | | | | 1 2.0 |

*** END OF REPORT ***

* .. Total animals with tissue examined microscopically; Total animals with lesion and mean severity grade

+ .. Tissue examined microscopically

X .. Lesion present

I .. Insufficient tissue

M .. Missing tissue

A .. Autolysis precludes evaluation

BLANK .. Not examined microscopically

1-4 .. Lesion qualified as:

1) Minimal 3) Moderate

2) Mild 4) Marked

Appendix VI Cause of Death Summary (Pathology Report 22)

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

NTP Study Number: C10034
Lock Date: 08/16/2017
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: 09/29/2017

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 Veh. Ctrl M | F1 2.5 BPA M | F1 25.0 BPA M | F1 250.0 BPA M | F1 2500.BPA M | F1 25000 BPA M |
|-----------------------------|-----------------------|---------------------|----------------------|-----------------------|----------------------|-----------------------|
| Esophagus - Perforation | | | 1 | | | |
| Kidney - Nephropathy | | | | | | |
| Lung - Hemorrhage | | | 1 | | | |
| Skin - Abscess | | | | | | |
| Spleen - Lymphoma Malignant | 2 | | | | | |
| UNCERTAIN | 2 | | | | 2 | 1 |

Non-parenthetic values are total Primary Cause of Death

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 0.05 EE2 M | F1 0.50 EE2 M | F1 Veh.StDose M | F1 2.5 StDose M | F1 25.0 StDose M | F1 250.0StDose M |
|-----------------------------|----------------------|----------------------|------------------------|------------------------|-------------------------|-------------------------|
| Esophagus - Perforation | | | | | | |
| Kidney - Nephropathy | 1 | | | | | |
| Lung - Hemorrhage | | | | | | |
| Skin - Abscess | 1 | | | | | |
| Spleen - Lymphoma Malignant | | | | | | |
| UNCERTAIN | 2 | 3 | | | 1 | |

Non-parenthetic values are total Primary Cause of Death

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

Cause of Death

F1 2500.StDose M

F1 25000StDose M

Esophagus - Perforation
Kidney - Nephropathy
Lung - Hemorrhage
Skin - Abscess
Spleen - Lymphoma Malignant
UNCERTAIN

END OF MALE

Non-parenthetic values are total Primary Cause of Death

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

FEMALE

| Cause of Death | F1 Veh. Ctrl F | F1 2.5 BPA F | F1 25.0 BPA F | F1 250.0BPA F | F1 2500.BPA F | F1 25000 BPA F |
|--|----------------|--------------|---------------|---------------|---------------|----------------|
| Brain, Brain Stem - Meningioma Malignant | | | | | | |
| Brain, Cerebellum - Meningioma Malignant | | | | | | |
| Kidney - Nephropathy | 1 | | 1 | 1 | | |
| Mammary Gland - Adenocarcinoma | | | | | | |
| Mammary Gland - Fibroadenoma | | | | 1 | | |
| UNCERTAIN | 1 | | | | | |

Non-parenthetic values are total Primary Cause of Death

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

FEMALE

| Cause of Death | F1 0.05 EE2 F | F1 0.50 EE2 F | F1 Veh. StDose F | F1 2.5 StDose F | F1 25.0 StDose F | F1 250.0StDose F |
|--|----------------------|----------------------|-------------------------|------------------------|-------------------------|-------------------------|
| Brain, Brain Stem - Meningioma Malignant | | | | | | |
| Brain, Cerebellum - Meningioma Malignant | | | | | | |
| Kidney - Nephropathy | | | | | | |
| Mammary Gland - Adenocarcinoma | 1 | | | | | |
| Mammary Gland - Fibroadenoma | | | | | | |
| UNCERTAIN | 1 | | | | | |

Non-parenthetic values are total Primary Cause of Death

Experiment Number: 10034 - 03
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
Bisphenol A
CAS Number: 80-05-7
1 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:20:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

FEMALE

| Cause of Death | F1 2500.StDose F | F1 25000StDose F * |
|--|-------------------------|---------------------------|
| Brain, Brain Stem - Meningioma Malignant | | (1) |
| Brain, Cerebellum - Meningioma Malignant | | 1 |
| Kidney - Nephropathy | | 1 |
| Mammary Gland - Adenocarcinoma | | |
| Mammary Gland - Fibroadenoma | | |
| UNCERTAIN | | |

END OF REPORT

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
Bisphenol A
CAS Number: 80-05-7
2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

NTP Study Number: C10034
Lock Date: 08/16/2017
Cage Range: ALL
Date Range: ALL
Reasons For Removal: ALL
Removal Date Range: ALL
Treatment Groups: Include ALL
Study Gender: Both
TDMSE Version: 3.0.2.3_002
PWG Approval Date: 09/29/2017

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 Veh. Ctrl M * | F1 2.5 BPA M * | F1 25.0 BPA M * | F1 250.0BPA M * | F1 2500.BPA M * | F1 25000BPA M * |
|---|------------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Adrenal Cortex - Sarcoma | | | | | (1) | |
| Adrenal Medulla - Pheochromocytoma Benign | 1 | | | | | |
| Adrenal Medulla - Pheochromocytoma Malignant | | | | | 1 | |
| Blood Vessel - Mesothelioma Malignant | | | | | | |
| Bone - Chordoma | | | | 1 | | |
| Bone - Hyperostosis | | | | | | |
| Bone - Osteosarcoma | 1 | | | 1 | 1 | 1 |
| Bone Marrow - Leukemia Granulocytic | 1 | | | | | |
| Bone, Femur - Osteosarcoma | | | | | | |
| Brain, Brain Stem - Gliosis | | (1) | | | | |
| Brain, Brain Stem - Granular Cell Tumor Malignant | | | | | | |
| Brain, Cerebrum - Gliosis | | 1 | | | | |
| Brain, Cerebrum - Granular Cell Tumor Malignant | 1 | | | | | |
| Brain, Cerebrum - Necrosis | | | | | | 1 |
| Brain, Cerebrum - Sarcoma | | | | | | |
| Coagulating Gland - Sarcoma | | | | | (1) | |
| Ear - Neural Crest Tumor, Malignant | | | | | | |
| Epididymis - Sarcoma | | | | | (1) | |
| Esophagus - Foreign Body | | | | | | (1) |
| Esophagus - Inflammation | | | | | | (1) |
| Esophagus - Necrosis | | | | | | 1 |
| Esophagus - Perforation | | 2 | | 1 | | |
| Fat Pad, Epididymal - Sarcoma | | | | | (1) | |
| Heart - Cardiomyopathy | 1 | | | | | |
| Heart - Mesothelioma Malignant | | | | | | |
| Heart - Schwannoma Malignant | | | | | | |
| Intestine Large, Colon - Adenocarcinoma | | | | | | |
| Intestine Large, Colon - Inflammation | | | | | | 1 |
| Intestine Small, Jejunum - Adenocarcinoma | | | | | 1 | 1 |
| Intestine Small, Jejunum - Perforation | | | | | | |
| Islets, Pancreatic - Carcinoma | | | | | | |
| Islets, Pancreatic - Sarcoma | | | | | (1) | |
| Kidney - Liposarcoma | | | | | | |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 Veh. Ctrl M * | F1 2.5 BPA M * | F1 25.0 BPA M * | F1 250.0BPA M * | F1 2500.BPA M * | F1 25000BPA M * |
|---|------------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Kidney - Nephropathy | 2 | 4 | 4 | 7 | 6 | 2 |
| Kidney - Polycystic Kidney | | | | | 1 | |
| Liver - Fatty Change | | | | 1 | | |
| Liver - Hemangiosarcoma | | | | 1 | 1 | |
| Liver - Hepatocellular Carcinoma | | | | 1 | | 1 |
| Liver - Histiocytic Sarcoma | 1 | | | | | 2 |
| Liver - Necrosis | | | | | 1 | |
| Liver - Sarcoma | | | | | 1 | |
| Lung - Abscess | | | | | | |
| Lung - Alveolar/Bronchiolar Carcinoma | | 1 | | | | |
| Lung - Hemorrhage | | | | | | |
| Lung - Infiltration Cellular | 1 | | | | | 1 |
| Lung - Inflammation | | 2 | | | | |
| Lung - Mesothelioma Malignant | | | | | | |
| Lung - Sarcoma | | | | | (1) | |
| Mammary Gland - Fibroadenoma | | | | | | |
| Mammary Gland - Fibroma | 1 | | | | 1 | |
| Nose - Inflammation | | | | | | |
| Nose - Keratin Cyst | | | | | | |
| Nose - Lymphoma Malignant | | | | | | 1 |
| Nose - Squamous Cell Carcinoma | | | | | 2 | |
| Oral Mucosa - Fibrosarcoma | | | | | 1 | |
| Oral Mucosa - Squamous Cell Carcinoma | 1 | | 1 | | | |
| Pituitary Gland - Adenoma | 10 | 10 | 8 | 3 | 8 | 6 |
| Pituitary Gland - Carcinoma | | | | | 1 | |
| Pituitary Gland - Craniopharyngioma | | | | | | |
| Pituitary Gland - Cyst | | 1 | | | | |
| Pituitary Gland - Thrombosis | | | | | | |
| Preputial Gland - Abscess | | | | | | |
| Preputial Gland - Carcinoma | 3 | 2 | 3 | 3 | 3 | 3 |
| Preputial Gland - Carcinosarcoma | | | | | | |
| Preputial Gland - Hyperkeratosis | | 1 | | | | |
| Prostate, Dorsal/Lateral Lobe - Sarcoma | | | | | (1) | |
| Prostate, Ventral Lobe - Sarcoma | | | | | (1) | |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 Veh. Ctrl M * | F1 2.5 BPA M * | F1 25.0 BPA M * | F1 250.0BPA M * | F1 2500.BPA M * | F1 25000BPA M * |
|---|------------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Salivary Glands - Inflammation | | | | | | |
| Seminal Vesicle - Carcinosarcoma | | | | | | |
| Seminal Vesicle - Sarcoma | | | | | (1) | |
| Skeletal Muscle - Mesothelioma Malignant | | | | | | |
| Skin - Abscess | 1 | | | | | |
| Skin - Adenoma | | | | | | 1 |
| Skin - Basal Cell Adenoma | | | | | | 1 |
| Skin - Basal Cell Carcinoma | | | | | | |
| Skin - Cyst | | 1 | | | | |
| Skin - Cyst Epithelial Inclusion | | | | | | |
| Skin - Edema | (2) | | | (1) | | (2) |
| Skin - Fibroma | | | | | | 1 |
| Skin - Fibrosarcoma | | | 2 | | | |
| Skin - Fibrosis | (2) | | (2) | (1) | | (3) |
| Skin - Foreign Body | | | | | | |
| Skin - Hemorrhage | | | | | | (1) |
| Skin - Histiocytic Sarcoma | | | | | | |
| Skin - Hyperplasia | (2) | | (2) | (1) | | 1 (1) |
| Skin - Inflammation | (2) | | (2) | (1) | | (3) |
| Skin - Keratoacanthoma | | | | | | |
| Skin - Lipoma | | | | | | |
| Skin - Necrosis | (2) | | (2) | (1) | | (2) |
| Skin - Pilomatrixoma | 1 | | | | | |
| Skin - Sarcoma | | 1 | | | 1 | |
| Skin - Schwannoma Malignant | | | | | | |
| Skin - Squamous Cell Carcinoma | | | 1 | | | |
| Skin - Ulcer | 2 | | 2 | 1 | | 2 |
| Spleen - Leukemia Granulocytic | | | | | | |
| Spleen - Leukemia Mononuclear | 1 | | 1 | | | |
| Spleen - Lymphoma Malignant | 2 | 1 | 3 | 2 | 3 | 2 |
| Spleen - Sarcoma | | 1 | 1 | | (1) | |
| Stomach, Forestomach - Perforation | | | | | | |
| Stomach, Glandular - Schwannoma Malignant | | | | | | |
| Testes - Sarcoma | | | | | (1) | |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 Veh. Ctrl M * | F1 2.5 BPA M * | F1 25.0 BPA M * | F1 250.0BPA M * | F1 2500.BPA M * | F1 25000BPA M * |
|---|------------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Thymus - Mesothelioma Malignant | | | | | | |
| Thyroid Gland - Carcinoma | | | | 1 | | |
| Tissue NOS - Mesothelioma Malignant | | | | | | |
| Tissue NOS - Sarcoma | | | | | (1) | |
| UNCERTAIN | 3 | 3 | 2 | 12 | 1 | 6 |
| Urinary Bladder - Calculus Micro Observation Only | | 1 | | | | |
| Urinary Bladder - Carcinoma | | | | 1 | | |
| Zymbal's Gland - Adenoma | | | 2 | | | |
| Zymbal's Gland - Carcinoma | 1 | | 1 | | | |
| Zymbal's Gland - Inflammation | | | | | | |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 0.05 EE2 M * | F1 0.50 EE2 M | F1 Veh. StDose M * | F1 2.5 StDose M * | F1 25.0 StDose M * | F1 250.0StDose M * |
|---|-----------------|---------------|--------------------|-------------------|--------------------|--------------------|
| Adrenal Cortex - Sarcoma | | | | | | |
| Adrenal Medulla - Pheochromocytoma Benign | | | | | | |
| Adrenal Medulla - Pheochromocytoma Malignant | | | | | | |
| Blood Vessel - Mesothelioma Malignant | | | | (1) | | |
| Bone - Chordoma | | | | | | |
| Bone - Hyperostosis | | 1 | | | | |
| Bone - Osteosarcoma | | | | | | |
| Bone Marrow - Leukemia Granulocytic | | | | | 1 | |
| Bone, Femur - Osteosarcoma | | | | | | |
| Brain, Brain Stem - Gliosis | | | | | | |
| Brain, Brain Stem - Granular Cell Tumor Malignant | | | | | (1) | |
| Brain, Cerebrum - Gliosis | | | | | | |
| Brain, Cerebrum - Granular Cell Tumor Malignant | | | | | 1 | 1 |
| Brain, Cerebrum - Necrosis | | | | | | |
| Brain, Cerebrum - Sarcoma | | | | | | |
| Coagulating Gland - Sarcoma | | | | | | |
| Ear - Neural Crest Tumor, Malignant | | | | | | 1 |
| Epididymis - Sarcoma | | | | | | |
| Esophagus - Foreign Body | | | | | | |
| Esophagus - Inflammation | | | | | | |
| Esophagus - Necrosis | | | | | | |
| Esophagus - Perforation | | | | | | |
| Fat Pad, Epididymal - Sarcoma | | | | | | |
| Heart - Cardiomyopathy | | 1 | | | | |
| Heart - Mesothelioma Malignant | | | | (1) | | |
| Heart - Schwannoma Malignant | | | | 1 | | |
| Intestine Large, Colon - Adenocarcinoma | 1 | | | | | |
| Intestine Large, Colon - Inflammation | | | | | | |
| Intestine Small, Jejunum - Adenocarcinoma | | | 1 | 1 | | |
| Intestine Small, Jejunum - Perforation | | | | | | |
| Islets, Pancreatic - Carcinoma | | | | 1 | | |
| Islets, Pancreatic - Sarcoma | | | | | | |
| Kidney - Liposarcoma | | | | 2 | 1 | 1 |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 0.05 EE2 M * | F1 0.50 EE2 M | F1 Veh. StDose M * | F1 2.5 StDose M * | F1 25.0 StDose M * | F1 250.0StDose M * |
|---|-----------------|---------------|--------------------|-------------------|--------------------|--------------------|
| Kidney - Nephropathy | 1 | 1 | 9 | 4 | 10 | 6 |
| Kidney - Polycystic Kidney | | | 1 | | | |
| Liver - Fatty Change | | | | | | 1 |
| Liver - Hemangiosarcoma | | | | | | |
| Liver - Hepatocellular Carcinoma | | | | | 1 | 1 |
| Liver - Histiocytic Sarcoma | | | | | | |
| Liver - Necrosis | | | | | | |
| Liver - Sarcoma | | | | | | |
| Lung - Abscess | 1 | | | | | |
| Lung - Alveolar/Bronchiolar Carcinoma | | | | | | |
| Lung - Hemorrhage | 1 | | | | | |
| Lung - Infiltration Cellular | | | | | | |
| Lung - Inflammation | | | | 1 | | 1 |
| Lung - Mesothelioma Malignant | | | | (1) | | |
| Lung - Sarcoma | | | | | | |
| Mammary Gland - Fibroadenoma | | | 1 | | | 1 |
| Mammary Gland - Fibroma | | | | | | |
| Nose - Inflammation | | | | | 1 | |
| Nose - Keratin Cyst | | | | | 1 | |
| Nose - Lymphoma Malignant | | | | | | |
| Nose - Squamous Cell Carcinoma | | | | | | |
| Oral Mucosa - Fibrosarcoma | | | | | | |
| Oral Mucosa - Squamous Cell Carcinoma | | | | | 1 | |
| Pituitary Gland - Adenoma | 2 | 3 | 6 | 10 | 5 | 5 |
| Pituitary Gland - Carcinoma | | | | | | |
| Pituitary Gland - Craniopharyngioma | | | | | | |
| Pituitary Gland - Cyst | | | | | | |
| Pituitary Gland - Thrombosis | | 1 | | | | |
| Preputial Gland - Abscess | | 1 | | | | |
| Preputial Gland - Carcinoma | 3 | 1 | 1 | 2 | 2 | 4 |
| Preputial Gland - Carcinosarcoma | | | | | | |
| Preputial Gland - Hyperkeratosis | | | | | | |
| Prostate, Dorsal/Lateral Lobe - Sarcoma | | | | | | |
| Prostate, Ventral Lobe - Sarcoma | | | | | | |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 0.05 EE2 M * | F1 0.50 EE2 M | F1 Veh. StDose M * | F1 2.5 StDose M * | F1 25.0 StDose M * | F1 250.0StDose M * |
|---|-----------------|---------------|--------------------|-------------------|--------------------|--------------------|
| Salivary Glands - Inflammation | | | | | | 1 |
| Seminal Vesicle - Carcinosarcoma | | | | | | |
| Seminal Vesicle - Sarcoma | | | | | | |
| Skeletal Muscle - Mesothelioma Malignant | | | | (1) | | |
| Skin - Abscess | | | | | | |
| Skin - Adenoma | | | | | | |
| Skin - Basal Cell Adenoma | | | | | | |
| Skin - Basal Cell Carcinoma | | 1 | | | | 1 |
| Skin - Cyst | | | | | | |
| Skin - Cyst Epithelial Inclusion | | | 1 | | 1 | 2 |
| Skin - Edema | (2) | | (2) | | | |
| Skin - Fibroma | | | | 1 | | |
| Skin - Fibrosarcoma | | | 1 | | | 1 |
| Skin - Fibrosis | (2) | | (2) | | | (1) |
| Skin - Foreign Body | | | | | | (1) |
| Skin - Hemorrhage | | | | | | |
| Skin - Histiocytic Sarcoma | | | | | | 1 |
| Skin - Hyperplasia | (2) | | (2) | | | |
| Skin - Inflammation | (2) | | (2) | | | (1) |
| Skin - Keratoacanthoma | | | | | 1 | |
| Skin - Lipoma | | | | | | |
| Skin - Necrosis | (2) | | (2) | | | (1) |
| Skin - Pilomatrixoma | | | | | | |
| Skin - Sarcoma | | | | | | |
| Skin - Schwannoma Malignant | | | 1 | | 1 | 2 |
| Skin - Squamous Cell Carcinoma | | | 1 | | 1 | |
| Skin - Ulcer | 2 | | 2 | 1 | | 1 |
| Spleen - Leukemia Granulocytic | | | | 1 | | |
| Spleen - Leukemia Mononuclear | | | 1 | | 1 | |
| Spleen - Lymphoma Malignant | 2 | 1 | 1 | | 1 | 3 |
| Spleen - Sarcoma | 1 | | | | | |
| Stomach, Forestomach - Perforation | | | | 1 | | |
| Stomach, Glandular - Schwannoma Malignant | | | | | | 1 |
| Testes - Sarcoma | | | | | | |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 0.05 EE2 M * | F1 0.50 EE2 M | F1 Veh. StDose M * | F1 2.5 StDose M * | F1 25.0 StDose M * | F1 250.0StDose M * |
|---|-----------------|---------------|--------------------|-------------------|--------------------|--------------------|
| Thymus - Mesothelioma Malignant | | | | 1 | | |
| Thyroid Gland - Carcinoma | | | | | | |
| Tissue NOS - Mesothelioma Malignant | | | | (1) | | |
| Tissue NOS - Sarcoma | | | | | | |
| UNCERTAIN | 2 | 2 | 6 | 3 | 2 | 2 |
| Urinary Bladder - Calculus Micro Observation Only | | | | | | |
| Urinary Bladder - Carcinoma | | | | | | |
| Zymbal's Gland - Adenoma | | | | | | |
| Zymbal's Gland - Carcinoma | 1 | 1 | | 1 | | |
| Zymbal's Gland - Inflammation | | | | 1 | | |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 2500.StDose M * | F1 25000StDose M |
|---|--------------------|------------------|
| Adrenal Cortex - Sarcoma | | |
| Adrenal Medulla - Pheochromocytoma Benign | | |
| Adrenal Medulla - Pheochromocytoma Malignant | | |
| Blood Vessel - Mesothelioma Malignant | | |
| Bone - Chordoma | | |
| Bone - Hyperostosis | | |
| Bone - Osteosarcoma | | |
| Bone Marrow - Leukemia Granulocytic | | |
| Bone, Femur - Osteosarcoma | | 1 |
| Brain, Brain Stem - Gliosis | | |
| Brain, Brain Stem - Granular Cell Tumor Malignant | | |
| Brain, Cerebrum - Gliosis | | |
| Brain, Cerebrum - Granular Cell Tumor Malignant | | |
| Brain, Cerebrum - Necrosis | | |
| Brain, Cerebrum - Sarcoma | | 1 |
| Coagulating Gland - Sarcoma | | |
| Ear - Neural Crest Tumor, Malignant | | |
| Epididymis - Sarcoma | | |
| Esophagus - Foreign Body | | |
| Esophagus - Inflammation | | |
| Esophagus - Necrosis | | |
| Esophagus - Perforation | | |
| Fat Pad, Epididymal - Sarcoma | | |
| Heart - Cardiomyopathy | | |
| Heart - Mesothelioma Malignant | | 1 |
| Heart - Schwannoma Malignant | 1 | |
| Intestine Large, Colon - Adenocarcinoma | | |
| Intestine Large, Colon - Inflammation | | |
| Intestine Small, Jejunum - Adenocarcinoma | | |
| Intestine Small, Jejunum - Perforation | | 1 |
| Islets, Pancreatic - Carcinoma | 1 | |
| Islets, Pancreatic - Sarcoma | | |
| Kidney - Liposarcoma | | |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 2500.StDose M * | F1 25000StDose M |
|---|--------------------|------------------|
| Kidney - Nephropathy | 15 | 9 |
| Kidney - Polycystic Kidney | | |
| Liver - Fatty Change | | |
| Liver - Hemangiosarcoma | | |
| Liver - Hepatocellular Carcinoma | | |
| Liver - Histiocytic Sarcoma | | |
| Liver - Necrosis | | 1 |
| Liver - Sarcoma | | |
| Lung - Abscess | | |
| Lung - Alveolar/Bronchiolar Carcinoma | | |
| Lung - Hemorrhage | | |
| Lung - Infiltration Cellular | | |
| Lung - Inflammation | | |
| Lung - Mesothelioma Malignant | | |
| Lung - Sarcoma | | 1 |
| Mammary Gland - Fibroadenoma | | 1 |
| Mammary Gland - Fibroma | | |
| Nose - Inflammation | | |
| Nose - Keratin Cyst | | |
| Nose - Lymphoma Malignant | | |
| Nose - Squamous Cell Carcinoma | | |
| Oral Mucosa - Fibrosarcoma | | |
| Oral Mucosa - Squamous Cell Carcinoma | 1 | |
| Pituitary Gland - Adenoma | 4 | 4 |
| Pituitary Gland - Carcinoma | | |
| Pituitary Gland - Craniopharyngioma | | 1 |
| Pituitary Gland - Cyst | | |
| Pituitary Gland - Thrombosis | | |
| Preputial Gland - Abscess | | |
| Preputial Gland - Carcinoma | 2 | 4 |
| Preputial Gland - Carcinosarcoma | | 1 |
| Preputial Gland - Hyperkeratosis | | |
| Prostate, Dorsal/Lateral Lobe - Sarcoma | | |
| Prostate, Ventral Lobe - Sarcoma | | |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 2500.StDose M * | F1 25000StDose M |
|---|--------------------|------------------|
| Salivary Glands - Inflammation | | |
| Seminal Vesicle - Carcinoma | 1 | |
| Seminal Vesicle - Sarcoma | | |
| Skeletal Muscle - Mesothelioma Malignant | | |
| Skin - Abscess | | |
| Skin - Adenoma | | |
| Skin - Basal Cell Adenoma | 1 | |
| Skin - Basal Cell Carcinoma | | |
| Skin - Cyst | | |
| Skin - Cyst Epithelial Inclusion | | |
| Skin - Edema | (2) | |
| Skin - Fibroma | | |
| Skin - Fibrosarcoma | | |
| Skin - Fibrosis | (2) | |
| Skin - Foreign Body | | |
| Skin - Hemorrhage | | 1 |
| Skin - Histiocytic Sarcoma | | |
| Skin - Hyperplasia | (2) | |
| Skin - Inflammation | (2) | |
| Skin - Keratoacanthoma | | |
| Skin - Lipoma | 1 | |
| Skin - Necrosis | (2) | |
| Skin - Pilomatrixoma | | |
| Skin - Sarcoma | 1 | 1 |
| Skin - Schwannoma Malignant | | |
| Skin - Squamous Cell Carcinoma | | |
| Skin - Ulcer | 2 | |
| Spleen - Leukemia Granulocytic | | 1 |
| Spleen - Leukemia Mononuclear | | |
| Spleen - Lymphoma Malignant | 2 | 5 |
| Spleen - Sarcoma | | |
| Stomach, Forestomach - Perforation | | |
| Stomach, Glandular - Schwannoma Malignant | | |
| Testes - Sarcoma | | |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
Bisphenol A
CAS Number: 80-05-7
2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

MALE

| Cause of Death | F1 2500.StDose M * | F1 25000StDose M |
|---|---------------------------|-------------------------|
| Thymus - Mesothelioma Malignant | | |
| Thyroid Gland - Carcinoma | | |
| Tissue NOS - Mesothelioma Malignant | | |
| Tissue NOS - Sarcoma | | 1 |
| UNCERTAIN | 3 | 2 |
| Urinary Bladder - Calculus Micro Observation Only | | |
| Urinary Bladder - Carcinoma | | |
| Zymbal's Gland - Adenoma | | |
| Zymbal's Gland - Carcinoma | | |
| Zymbal's Gland - Inflammation | | |

END OF MALE

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
 Test Type: CHRONIC
 Route: GAVAGE
 Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
 CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
 Time Report Requested: 10:21:03
 First Dose M/F: 09/25/12 / 09/25/12
 Lab: NCTR

FEMALE

| Cause of Death | F1 Veh. Ctrl F * | F1 2.5 BPA F * | F1 25.0 BPA F * | F1 250.0BPA F * | F1 2500.BPA F * | F1 25000BPA F * |
|---|------------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Adrenal Medulla - Pheochromocytoma Malignant | | | | | 1 | |
| Bone - Fracture | | | | | 1 | |
| Brain, Brain Stem - Glioma Malignant | | | 1 | | | |
| Brain, Cerebellum - Glioma Malignant | | | (1) | | | |
| Brain, Cerebrum - Glioma Malignant | | | (1) | | | |
| Brain, Cerebrum - Oligodendroglioma Malignant | | 1 | | | | |
| Clitoral Gland - Adenoma | | | | | | 1 |
| Clitoral Gland - Carcinoma | | 1 | 1 | | 2 | |
| Clitoral Gland - Fibrosarcoma | | 1 | | | | |
| Intestine Large, Cecum - Perforation | | | 1 | | | |
| Intestine Small, Jejunum - Adenocarcinoma | | | | | | |
| Kidney - Nephropathy | | 1 | 1 | 1 | | 2 |
| Liver - Histiocytic Sarcoma | | | | | | 1 |
| Lung - Hemorrhage | | 1 | | | | |
| Lung - Inflammation | | | | | | |
| Lung - Yolk Sac Carcinoma | | | 1 | | | |
| Mammary Gland - Adenocarcinoma | | | 3 | 1 | 1 | |
| Mammary Gland - Adenoma | | | | | | |
| Mammary Gland - Carcinosarcoma | 1 | | | | | |
| Mammary Gland - Fibroadenoma | 14 | 10 | 15 | 18 | 15 | 13 |
| Ovary - Yolk Sac Carcinoma | | | | 1 | | |
| Pituitary Gland - Adenoma | 9 | 8 | 3 | 11 | 11 | 14 |
| Pituitary Gland - Carcinoma | 1 | 1 | | | | |
| Skeletal Muscle - Hernia | | | 1 | | | |
| Skeletal Muscle - Rhabdomyosarcoma | | | | | | |
| Skin - Bacterium | | | (2) | | | |
| Skin - Basal Cell Adenoma | | | | | | |
| Skin - Edema | (2) | (2) | (2) | (1) | (3) | (1) |
| Skin - Fibrosarcoma | | | | | | 1 |
| Skin - Fibrosis | (2) | (2) | (3) | (1) | (2) | (1) |
| Skin - Hemorrhage | | | | | (1) | |
| Skin - Histiocytic Sarcoma | | | | | | |
| Skin - Hyperplasia | (2) | 1 (1) | 1 (2) | (1) | (3) | (1) |
| Skin - Inflammation | (2) | (2) | (3) | (1) | (3) | (1) |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

FEMALE

| Cause of Death | F1 Veh. Ctrl F * | F1 2.5 BPA F * | F1 25.0 BPA F * | F1 250.0BPA F * | F1 2500.BPA F * | F1 25000BPA F * |
|----------------------------------|------------------|----------------|-----------------|-----------------|-----------------|-----------------|
| Skin - Lipoma | | | | | | |
| Skin - Necrosis | (2) | (1) | (2) | (1) | (3) | (1) |
| Skin - Squamous Cell Papilloma | 1 | | | | | |
| Skin - Ulcer | 2 | 1 | 2 | 1 | 3 | 1 |
| Spleen - Leukemia Granulocytic | 1 | | | | | |
| Spleen - Leukemia Mononuclear | | | | | | |
| Spleen - Lymphoma Malignant | 2 | 1 | 1 | | 2 | 1 |
| Spleen - Sarcoma | | | | 1 | | |
| Thymus - Squamous Cell Carcinoma | | | | | | |
| Thyroid Gland - Carcinoma | | 1 | | | | |
| Tissue NOS - Lipoma | | | | | | |
| Tissue NOS - Sarcoma | | | | | | |
| UNCERTAIN | 3 | | 1 | 2 | 2 | 1 |
| Uterus - Adenocarcinoma | | 1 | | | 1 | 1 |
| Uterus - Polyp Stromal | | | | | | |
| Uterus - Sarcoma | | | | | | |
| Uterus - Schwannoma Malignant | | | | | | |
| Zymbal's Gland - Carcinoma | | | | | 1 | 2 |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

FEMALE

| Cause of Death | F1 0.05 EE2 F * | F1 0.50 EE2 F | F1 Veh. StDose F | F1 2.5 StDose F | F1 25.0 StDose F * | F1 250.0StDose F * |
|---|-----------------|---------------|------------------|-----------------|--------------------|--------------------|
| Adrenal Medulla - Pheochromocytoma Malignant | | | | | | |
| Bone - Fracture | | | | | | |
| Brain, Brain Stem - Glioma Malignant | | | | | | |
| Brain, Cerebellum - Glioma Malignant | | | | | | |
| Brain, Cerebrum - Glioma Malignant | | | | | | |
| Brain, Cerebrum - Oligodendroglioma Malignant | | | | | | |
| Clitoral Gland - Adenoma | | | | | | |
| Clitoral Gland - Carcinoma | | | | | | 1 |
| Clitoral Gland - Fibrosarcoma | | | | | | |
| Intestine Large, Cecum - Perforation | | | | | | |
| Intestine Small, Jejunum - Adenocarcinoma | | 1 | | | | |
| Kidney - Nephropathy | | | 1 | | | |
| Liver - Histiocytic Sarcoma | | | | | | |
| Lung - Hemorrhage | | | | | | |
| Lung - Inflammation | | 1 | | | | |
| Lung - Yolk Sac Carcinoma | | | | | | |
| Mammary Gland - Adenocarcinoma | 1 | 1 | | 3 | 2 | |
| Mammary Gland - Adenoma | | | | | | 1 |
| Mammary Gland - Carcinosarcoma | | | | | 2 | |
| Mammary Gland - Fibroadenoma | 6 | 3 | 22 | 21 | 20 (1) | 18 |
| Ovary - Yolk Sac Carcinoma | | | | | | |
| Pituitary Gland - Adenoma | 5 | 13 | 13 | 9 | 6 | 12 |
| Pituitary Gland - Carcinoma | | 2 | | | | 1 |
| Skeletal Muscle - Hernia | | | | | | |
| Skeletal Muscle - Rhabdomyosarcoma | | 1 | | | | |
| Skin - Bacterium | (1) | | | | | |
| Skin - Basal Cell Adenoma | | | 1 | | | |
| Skin - Edema | (3) | | | | | (1) |
| Skin - Fibrosarcoma | 1 | | | 1 | 2 | |
| Skin - Fibrosis | (3) | | | | | |
| Skin - Hemorrhage | | | | | | |
| Skin - Histiocytic Sarcoma | | | | 1 | | |
| Skin - Hyperplasia | (2) | | | | | (1) |
| Skin - Inflammation | (3) | | | | | (1) |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

FEMALE

| Cause of Death | F1 0.05 EE2 F * | F1 0.50 EE2 F | F1 Veh. StDose F | F1 2.5 StDose F | F1 25.0 StDose F * | F1 250.0StDose F * |
|----------------------------------|-----------------|---------------|------------------|-----------------|--------------------|--------------------|
| Skin - Lipoma | | | | | | |
| Skin - Necrosis | (3) | | | | | (1) |
| Skin - Squamous Cell Papilloma | | | | | | |
| Skin - Ulcer | 3 | | | | | 1 |
| Spleen - Leukemia Granulocytic | | | | | | |
| Spleen - Leukemia Mononuclear | | | | | | 1 |
| Spleen - Lymphoma Malignant | | | | 1 | | |
| Spleen - Sarcoma | | | | | | |
| Thymus - Squamous Cell Carcinoma | | | | 1 | | |
| Thyroid Gland - Carcinoma | | | | | | |
| Tissue NOS - Lipoma | | | | | | |
| Tissue NOS - Sarcoma | 1 | | | | | |
| UNCERTAIN | 2 | | | | 1 | 2 |
| Uterus - Adenocarcinoma | | | 1 | 1 | | |
| Uterus - Polyp Stromal | | | 1 | | | |
| Uterus - Sarcoma | | | | | 1 | |
| Uterus - Schwannoma Malignant | | | | | 1 | |
| Zymbal's Gland - Carcinoma | | | | | | |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
 Bisphenol A
CAS Number: 80-05-7
 2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

FEMALE

| Cause of Death | F1 2500.StDose F * | F1 25000StDose F * |
|---|--------------------|--------------------|
| Adrenal Medulla - Pheochromocytoma Malignant | | |
| Bone - Fracture | | |
| Brain, Brain Stem - Glioma Malignant | | |
| Brain, Cerebellum - Glioma Malignant | | |
| Brain, Cerebrum - Glioma Malignant | | 1 |
| Brain, Cerebrum - Oligodendroglioma Malignant | | |
| Clitoral Gland - Adenoma | | |
| Clitoral Gland - Carcinoma | | |
| Clitoral Gland - Fibrosarcoma | | |
| Intestine Large, Cecum - Perforation | | |
| Intestine Small, Jejunum - Adenocarcinoma | | |
| Kidney - Nephropathy | 1 | |
| Liver - Histiocytic Sarcoma | | |
| Lung - Hemorrhage | | |
| Lung - Inflammation | 1 | |
| Lung - Yolk Sac Carcinoma | | |
| Mammary Gland - Adenocarcinoma | | 3 |
| Mammary Gland - Adenoma | | |
| Mammary Gland - Carcinosarcoma | | |
| Mammary Gland - Fibroadenoma | 14 | 15 |
| Ovary - Yolk Sac Carcinoma | | |
| Pituitary Gland - Adenoma | 11 | 10 |
| Pituitary Gland - Carcinoma | | |
| Skeletal Muscle - Hernia | | |
| Skeletal Muscle - Rhabdomyosarcoma | | |
| Skin - Bacterium | | |
| Skin - Basal Cell Adenoma | | |
| Skin - Edema | (1) | |
| Skin - Fibrosarcoma | 1 | |
| Skin - Fibrosis | (1) | (1) |
| Skin - Hemorrhage | | |
| Skin - Histiocytic Sarcoma | | |
| Skin - Hyperplasia | (1) | (1) |
| Skin - Inflammation | (1) | (1) |

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Experiment Number: 10034 - 04
Test Type: CHRONIC
Route: GAVAGE
Species/Strain: RATS/Sprague Dawley (NCTR)

P22: Cause Of Death Summary
Bisphenol A
CAS Number: 80-05-7
2 Year Animals

Date Report Requested: 08/16/2017
Time Report Requested: 10:21:03
First Dose M/F: 09/25/12 / 09/25/12
Lab: NCTR

FEMALE

| Cause of Death | F1 2500.StDose F * | F1 25000StDose F * |
|----------------------------------|---------------------------|---------------------------|
| Skin - Lipoma | 1 | |
| Skin - Necrosis | (1) | (1) |
| Skin - Squamous Cell Papilloma | | |
| Skin - Ulcer | 1 | 1 |
| Spleen - Leukemia Granulocytic | | |
| Spleen - Leukemia Mononuclear | 1 | |
| Spleen - Lymphoma Malignant | | 2 |
| Spleen - Sarcoma | | |
| Thymus - Squamous Cell Carcinoma | | |
| Thyroid Gland - Carcinoma | | |
| Tissue NOS - Lipoma | | 1 |
| Tissue NOS - Sarcoma | | |
| UNCERTAIN | 2 | |
| Uterus - Adenocarcinoma | | |
| Uterus - Polyp Stromal | | |
| Uterus - Sarcoma | | |
| Uterus - Schwannoma Malignant | | |
| Zymbal's Gland - Carcinoma | | |

END OF REPORT

* Animal(s) with multiple CODs.

Non-parenthetic values are total Primary Cause of Death

Parenthetic values are total Contributory Cause of Death

Appendix VII Mammary Gland Fibroadenoma / Adenoma / Adenocarcinoma Counts

Mammary Gland Fibroadenoma - Male

1 Year Continuous Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|---------|--------|-------|---------|-------|----------|---------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 71 | 0 | 221 | 0 | 381 | 0 | 541 | 0 | 701 | 0 | 861 | 0 |
| 72 | 0 | 222 | 0 | 382 | 0 | 542 | 0 | 702 | 0 | 862 | 0 |
| 81 | 0 | 231 | 0 | 391 | 0 | 551 | 0 | 711 | 0 | 871 | 0 |
| 82 | 0 | 232 | 0 | 392 | 0 | 552 | 0 | 712 | 0 | 872 | 0 |
| 2221 | 0 | 241 | 0 | 401 | 0 | 561 | 0 | 721 | 0 | 881 | 0 |
| 2222 | 0 | 242 | 0 | 402 | 0 | 562 | 0 | 722 | 0 | 882 | 0 |
| 2231 | 0 | 2381 | 0 | 2541 | 0 | 2701 | 0 | 2861 | 0 | 3021 | 0 |
| 2232 | 0 | 2382 | 0 | 2542 | 0 | 2702 | 0 | 2862 | 0 | 3022 | 0 |
| 2241 | 0 | 2391 | 0 | 2551 | 0 | 2711 | 0 | 2871 | 0 | 3031 | 0 |
| 2242 | 0 | 2392 | Missing | 2552 | 0 | 2712 | 0 | 2872 | 0 | 3032 | 0 |
| 4381 | 0 | 2401 | 0 | 2561 | 0 | 2721 | 0 | 2881 | 0 | 3041 | 0 |
| 4382 | 0 | 2402 | 0 | 2562 | 0 | 2722 | 0 | 2882 | Missing | 3042 | 0 |
| 4391 | 0 | 4541 | 0 | 4701 | 0 | 4861 | 0 | 5021 | 0 | 5181 | 0 |
| 4392 | 0 | 4542 | 0 | 4702 | 0 | 4862 | 0 | 5022 | 0 | 5182 | 0 |
| 4401 | 0 | 4561 | 0 | 4711 | 0 | 4871 | 0 | 5031 | 0 | 5191 | 0 |
| 4402 | 0 | 4562 | 0 | 4712 | 0 | 4872 | 0 | 5032 | 0 | 5192 | 0 |
| 6541 | 0 | 6631 | 0 | 6821 | 0 | 6961 | 0 | 7111 | 0 | 7201 | 0 |
| 6542 | 0 | 6632 | 0 | 6822 | 0 | 6962 | 0 | 7112 | 0 | 7202 | 0 |
| 6551 | 0 | 6681 | 0 | 8661 | 0 | 6971 | 0 | 8941 | 0 | 7241 | 0 |
| 6552 | 0 | 6682 | 0 | 8662 | 0 | 6972 | 0 | 8942 | 0 | 7242 | 0 |
| 8391 | 0 | 8521 | 0 | | | 8801 | 0 | | | 7251 | 0 |
| 8392 | 0 | 8522 | 0 | | | 8802 | 0 | | | 7252 | 0 |
| | | | | | | 8811 | 0 | | | | |
| | | | | | | 8812 | 0 | | | | |

Mammary Gland Adenoma - Male

1 Year Continuous Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|---------|--------|-------|---------|-------|----------|---------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 71 | 0 | 221 | 0 | 381 | 0 | 541 | 0 | 701 | 0 | 861 | 0 |
| 72 | 0 | 222 | 0 | 382 | 0 | 542 | 0 | 702 | 0 | 862 | 0 |
| 81 | 0 | 231 | 0 | 391 | 0 | 551 | 0 | 711 | 0 | 871 | 0 |
| 82 | 0 | 232 | 0 | 392 | 0 | 552 | 0 | 712 | 0 | 872 | 0 |
| 2221 | 0 | 241 | 0 | 401 | 0 | 561 | 0 | 721 | 0 | 881 | 0 |
| 2222 | 0 | 242 | 0 | 402 | 0 | 562 | 0 | 722 | 0 | 882 | 0 |
| 2231 | 0 | 2381 | 0 | 2541 | 0 | 2701 | 0 | 2861 | 0 | 3021 | 0 |
| 2232 | 0 | 2382 | 0 | 2542 | 0 | 2702 | 0 | 2862 | 0 | 3022 | 0 |
| 2241 | 0 | 2391 | 0 | 2551 | 0 | 2711 | 0 | 2871 | 0 | 3031 | 0 |
| 2242 | 0 | 2392 | Missing | 2552 | 0 | 2712 | 0 | 2872 | 0 | 3032 | 0 |
| 4381 | 0 | 2401 | 0 | 2561 | 0 | 2721 | 0 | 2881 | 0 | 3041 | 0 |
| 4382 | 0 | 2402 | 0 | 2562 | 0 | 2722 | 0 | 2882 | Missing | 3042 | 0 |
| 4391 | 0 | 4541 | 0 | 4701 | 0 | 4861 | 0 | 5021 | 0 | 5181 | 0 |
| 4392 | 0 | 4542 | 0 | 4702 | 0 | 4862 | 0 | 5022 | 0 | 5182 | 0 |
| 4401 | 0 | 4561 | 0 | 4711 | 0 | 4871 | 0 | 5031 | 0 | 5191 | 0 |
| 4402 | 0 | 4562 | 0 | 4712 | 0 | 4872 | 0 | 5032 | 0 | 5192 | 0 |
| 6541 | 0 | 6631 | 0 | 6821 | 0 | 6961 | 0 | 7111 | 0 | 5201 | 0 |
| 6542 | 0 | 6632 | 0 | 6822 | 0 | 6962 | 0 | 7112 | 0 | 5202 | 0 |
| 6551 | 0 | 6681 | 0 | 8661 | 0 | 6971 | 0 | 8941 | 0 | 7241 | 0 |
| 6552 | 0 | 6682 | 0 | 8662 | 0 | 6972 | 0 | 8942 | 0 | 7242 | 0 |
| 8391 | 0 | 8521 | 0 | | | 8801 | 0 | | | 7251 | 0 |
| 8392 | 0 | 8522 | 0 | | | 8802 | 0 | | | 7252 | 0 |
| | | | | | | 8811 | 0 | | | | |
| | | | | | | 8812 | 0 | | | | |

Mammary Gland Adenocarcinoma - Male

1 Year Continuous Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|---------|--------|-------|---------|-------|----------|---------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 71 | 0 | 221 | 0 | 381 | 0 | 541 | 0 | 701 | 0 | 861 | 0 |
| 72 | 0 | 222 | 0 | 382 | 0 | 542 | 0 | 702 | 0 | 862 | 0 |
| 81 | 0 | 231 | 0 | 391 | 0 | 551 | 0 | 711 | 0 | 871 | 0 |
| 82 | 0 | 232 | 0 | 392 | 0 | 552 | 0 | 712 | 0 | 872 | 0 |
| 2221 | 0 | 241 | 0 | 401 | 0 | 561 | 0 | 721 | 0 | 881 | 0 |
| 2222 | 0 | 242 | 0 | 402 | 0 | 562 | 0 | 722 | 0 | 882 | 0 |
| 2231 | 0 | 2381 | 0 | 2541 | 0 | 2701 | 0 | 2861 | 0 | 3021 | 0 |
| 2232 | 0 | 2382 | 0 | 2542 | 0 | 2702 | 0 | 2862 | 0 | 3022 | 0 |
| 2241 | 0 | 2391 | 0 | 2551 | 0 | 2711 | 0 | 2871 | 0 | 3031 | 0 |
| 2242 | 0 | 2392 | Missing | 2552 | 0 | 2712 | 0 | 2872 | 0 | 3032 | 0 |
| 4381 | 0 | 2401 | 0 | 2561 | 0 | 2721 | 0 | 2881 | 0 | 3041 | 0 |
| 4382 | 0 | 2402 | 0 | 2562 | 0 | 2722 | 0 | 2882 | Missing | 3042 | 0 |
| 4391 | 0 | 4541 | 0 | 4701 | 0 | 4861 | 0 | 5021 | 0 | 5181 | 0 |
| 4392 | 0 | 4542 | 0 | 4702 | 0 | 4862 | 0 | 5022 | 0 | 5182 | 0 |
| 4401 | 0 | 4561 | 0 | 4711 | 0 | 4871 | 0 | 5031 | 0 | 5191 | 0 |
| 4402 | 0 | 4562 | 0 | 4712 | 0 | 4872 | 0 | 5032 | 0 | 5192 | 0 |
| 6541 | 0 | 6631 | 0 | 6821 | 0 | 6961 | 0 | 7111 | 0 | 5201 | 0 |
| 6542 | 0 | 6632 | 0 | 6822 | 0 | 6962 | 0 | 7112 | 0 | 5202 | 0 |
| 6551 | 0 | 6681 | 0 | 8661 | 0 | 6971 | 0 | 8941 | 0 | 7241 | 0 |
| 6552 | 0 | 6682 | 0 | 8662 | 0 | 6972 | 0 | 8942 | 0 | 7242 | 0 |
| 8391 | 0 | 8521 | 0 | | | 8801 | 0 | | | 7251 | 0 |
| 8392 | 0 | 8522 | 0 | | | 8802 | 0 | | | 7252 | 0 |
| | | | | | | 8811 | 0 | | | | |
| | | | | | | 8812 | 0 | | | | |

Mammary Gland Fibroadenoma - Male**1 Year Continuous Dose**

Count = Number per Animal

| EE2 0.05 | | EE2 0.5 | |
|----------|-------|---------|---------|
| CID | Count | CID | Count |
| 1001 | 0 | 1121 | 0 |
| 1002 | 0 | 1122 | 0 |
| 1011 | 0 | 1131 | 0 |
| 1012 | 0 | 1132 | 0 |
| 1021 | 0 | 1141 | 0 |
| 1022 | 0 | 1142 | 0 |
| 3161 | 0 | 3281 | Missing |
| 3162 | 0 | 3282 | 0 |
| 3171 | 0 | 3291 | 0 |
| 3172 | 0 | 3292 | 0 |
| 3181 | 0 | 3301 | 0 |
| 3182 | 0 | 3302 | 0 |
| 5321 | 0 | 5441 | 0 |
| 5322 | 0 | 5442 | 0 |
| 5331 | 0 | 5451 | 0 |
| 5332 | 0 | 5452 | 0 |
| 5341 | 0 | 5461 | 0 |
| 5342 | 0 | 5462 | 0 |
| 7351 | 0 | 7431 | 0 |
| 7352 | 0 | 7432 | 0 |
| 7361 | 0 | 7441 | 0 |
| 7362 | 0 | 7442 | 0 |
| 9191 | 0 | 9271 | 0 |
| 9192 | 0 | 9272 | 0 |
| 9201 | 0 | 9281 | 0 |
| 9202 | 0 | 9282 | 0 |

Mammary Gland Adenoma - Male**1 Year Continuous Dose**

Count = Number per Animal

| EE2 0.05 | | EE2 0.5 | |
|----------|-------|---------|---------|
| CID | Count | CID | Count |
| 1001 | 0 | 1121 | 0 |
| 1002 | 0 | 1122 | 0 |
| 1011 | 0 | 1131 | 0 |
| 1012 | 0 | 1132 | 0 |
| 1021 | 0 | 1141 | 0 |
| 1022 | 0 | 1142 | 0 |
| 3161 | 0 | 3281 | Missing |
| 3162 | 0 | 3282 | 0 |
| 3171 | 0 | 3291 | 0 |
| 3172 | 0 | 3292 | 0 |
| 3181 | 0 | 3301 | 0 |
| 3182 | 0 | 3302 | 0 |
| 5321 | 0 | 5441 | 0 |
| 5322 | 0 | 5442 | 0 |
| 5331 | 0 | 5451 | 0 |
| 5332 | 0 | 5452 | 0 |
| 5341 | 0 | 5461 | 0 |
| 5342 | 0 | 5462 | 0 |
| 7351 | 0 | 7431 | 0 |
| 7352 | 0 | 7432 | 0 |
| 7361 | 0 | 7441 | 0 |
| 7362 | 0 | 7442 | 0 |
| 9191 | 0 | 9271 | 0 |
| 9192 | 0 | 9272 | 0 |
| 9201 | 0 | 9281 | 0 |
| 9202 | 0 | 9282 | 0 |

Mammary Gland Adenocarcinoma - Male**1 Year Continuous Dose**

Count = Number per Animal

| EE2 0.05 | | EE2 0.5 | |
|----------|-------|---------|---------|
| CID | Count | CID | Count |
| 1001 | 0 | 1121 | 0 |
| 1002 | 0 | 1122 | 0 |
| 1011 | 0 | 1131 | 0 |
| 1012 | 0 | 1132 | 0 |
| 1021 | 0 | 1141 | 0 |
| 1022 | 0 | 1142 | 0 |
| 3161 | 0 | 3281 | Missing |
| 3162 | 0 | 3282 | 0 |
| 3171 | 0 | 3291 | 0 |
| 3172 | 0 | 3292 | 0 |
| 3181 | 0 | 3301 | 0 |
| 3182 | 0 | 3302 | 0 |
| 5321 | 0 | 5441 | 0 |
| 5322 | 0 | 5442 | 0 |
| 5331 | 0 | 5451 | 0 |
| 5332 | 0 | 5452 | 0 |
| 5341 | 0 | 5461 | 0 |
| 5342 | 0 | 5462 | 0 |
| 7351 | 0 | 7431 | 0 |
| 7352 | 0 | 7432 | 0 |
| 7361 | 0 | 7441 | 0 |
| 7362 | 0 | 7442 | 0 |
| 9191 | 0 | 9271 | 0 |
| 9192 | 0 | 9272 | 0 |
| 9201 | 0 | 9281 | 0 |
| 9202 | 0 | 9282 | 0 |

Mammary Gland Fibroadenoma - Female

1 Year Continuous Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|-------|----------|-------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 141 | 0 | 301 | 0 | 461 | 0 | 621 | 0 | 781 | 0 | 941 | 0 |
| 142 | 0 | 302 | 0 | 462 | 0 | 622 | 0 | 782 | 1 | 942 | 0 |
| 151 | 0 | 311 | 0 | 471 | 1 | 631 | 0 | 791 | 0 | 951 | 0 |
| 152 | 0 | 312 | 1 | 472 | 0 | 632 | 0 | 792 | 0 | 952 | 0 |
| 161 | 0 | 321 | 0 | 481 | 0 | 641 | 0 | 801 | 0 | 961 | 2 |
| 162 | 0 | 322 | 0 | 482 | 0 | 642 | 0 | 802 | 0 | 962 | 0 |
| 2301 | 0 | 2461 | 0 | 2621 | 0 | 2781 | 0 | 2941 | 0 | 3101 | 0 |
| 2302 | 1 | 2462 | 0 | 2622 | 0 | 2782 | 0 | 2942 | 0 | 3102 | 0 |
| 2311 | 0 | 2471 | 0 | 2631 | 1 | 2791 | 0 | 2951 | 0 | 3111 | 1 |
| 2312 | 0 | 2472 | 0 | 2632 | 0 | 2792 | 0 | 2952 | 0 | 3112 | 0 |
| 2321 | 0 | 2481 | 0 | 2641 | 0 | 2801 | 0 | 2961 | 0 | 3121 | 0 |
| 2322 | 0 | 2482 | 0 | 2642 | 0 | 2802 | 0 | 2962 | 0 | 3122 | 0 |
| 4461 | 0 | 4621 | 0 | 4781 | 3 | 4941 | 0 | 5101 | 0 | 5261 | 0 |
| 4471 | 0 | 4622 | 0 | 4782 | 0 | 4942 | 0 | 5102 | 0 | 5262 | 0 |
| 4472 | 0 | 4641 | 0 | 4791 | 0 | 4951 | 0 | 5111 | 0 | 5271 | 0 |
| 4481 | 1 | 4642 | 0 | 4792 | 0 | 4952 | 0 | 5112 | 0 | 5272 | 1 |
| 4482 | 0 | 6761 | 0 | 6891 | 0 | 4961 | 0 | 7171 | 0 | 5281 | 1 |
| 6611 | 0 | 6762 | 1 | 6892 | 0 | 4962 | 0 | 7172 | 1 | 5282 | 0 |
| 6612 | 0 | 8591 | 0 | 6901 | 0 | 7031 | 0 | 9011 | 0 | 7311 | 0 |
| 6621 | 0 | 8592 | 0 | 6902 | 0 | 7032 | 0 | 9012 | 0 | 7312 | 0 |
| 6622 | 0 | 8601 | 0 | 8731 | 0 | 7041 | 0 | | | 7321 | 1 |
| 8461 | 0 | 8602 | 1 | 8732 | 0 | 7042 | 0 | | | 7322 | 0 |
| 8462 | 0 | | | | | 8871 | 1 | | | 9151 | 1 |
| | | | | | | 8872 | 0 | | | 9152 | 0 |

Mammary Gland Adenoma - Female**1 Year Continuous Dose**

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|-------|----------|-------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 141 | 0 | 301 | 0 | 461 | 0 | 621 | 0 | 781 | 0 | 941 | 0 |
| 142 | 0 | 302 | 0 | 462 | 0 | 622 | 0 | 782 | 0 | 942 | 0 |
| 151 | 0 | 311 | 0 | 471 | 0 | 631 | 0 | 791 | 0 | 951 | 0 |
| 152 | 0 | 312 | 0 | 472 | 0 | 632 | 0 | 792 | 0 | 952 | 0 |
| 161 | 0 | 321 | 0 | 481 | 0 | 641 | 0 | 801 | 0 | 961 | 0 |
| 162 | 0 | 322 | 0 | 482 | 0 | 642 | 0 | 802 | 0 | 962 | 0 |
| 2301 | 0 | 2461 | 0 | 2621 | 0 | 2781 | 0 | 2941 | 0 | 3101 | 0 |
| 2302 | 0 | 2462 | 0 | 2622 | 0 | 2782 | 0 | 2942 | 0 | 3102 | 0 |
| 2311 | 0 | 2471 | 0 | 2631 | 0 | 2791 | 0 | 2951 | 0 | 3111 | 0 |
| 2312 | 0 | 2472 | 0 | 2632 | 0 | 2792 | 0 | 2952 | 0 | 3112 | 0 |
| 2321 | 0 | 2481 | 0 | 2641 | 0 | 2801 | 0 | 2961 | 0 | 3121 | 0 |
| 2322 | 0 | 2482 | 0 | 2642 | 0 | 2802 | 0 | 2962 | 0 | 3122 | 0 |
| 4461 | 0 | 4621 | 0 | 4781 | 0 | 4941 | 0 | 5101 | 0 | 5261 | 0 |
| 4471 | 0 | 4622 | 0 | 4782 | 0 | 4942 | 0 | 5102 | 0 | 5262 | 0 |
| 4472 | 0 | 4641 | 0 | 4791 | 0 | 4951 | 0 | 5111 | 0 | 5271 | 0 |
| 4481 | 0 | 4642 | 0 | 4792 | 0 | 4952 | 0 | 5112 | 0 | 5272 | 0 |
| 4482 | 0 | 6761 | 0 | 6891 | 0 | 4961 | 0 | 7171 | 0 | 5281 | 0 |
| 6611 | 0 | 6762 | 0 | 6892 | 0 | 4962 | 0 | 7172 | 0 | 5282 | 0 |
| 6612 | 0 | 8591 | 0 | 6901 | 0 | 7031 | 0 | 9011 | 0 | 7311 | 0 |
| 6621 | 0 | 8592 | 0 | 6902 | 0 | 7032 | 0 | 9012 | 0 | 7312 | 0 |
| 6622 | 0 | 8601 | 0 | 8731 | 0 | 7041 | 0 | | | 7321 | 0 |
| 8461 | 0 | 8602 | 0 | 8732 | 0 | 7042 | 0 | | | 7322 | 0 |
| 8462 | 0 | | | | | 8871 | 0 | | | 9151 | 0 |
| | | | | | | 8872 | 0 | | | 9152 | 0 |

Mammary Gland Adenocarcinoma - Female

1 Year Continuous Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|-------|----------|-------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 141 | 0 | 301 | 0 | 461 | 0 | 621 | 0 | 781 | 0 | 941 | 0 |
| 142 | 0 | 302 | 0 | 462 | 0 | 622 | 0 | 782 | 0 | 942 | 0 |
| 151 | 0 | 311 | 0 | 471 | 0 | 631 | 0 | 791 | 0 | 951 | 0 |
| 152 | 0 | 312 | 0 | 472 | 0 | 632 | 0 | 792 | 0 | 952 | 0 |
| 161 | 0 | 321 | 0 | 481 | 0 | 641 | 0 | 801 | 0 | 961 | 0 |
| 162 | 0 | 322 | 0 | 482 | 0 | 642 | 0 | 802 | 0 | 962 | 0 |
| 2301 | 0 | 2461 | 0 | 2621 | 0 | 2781 | 0 | 2941 | 0 | 3101 | 0 |
| 2302 | 0 | 2462 | 0 | 2622 | 0 | 2782 | 0 | 2942 | 0 | 3102 | 0 |
| 2311 | 0 | 2471 | 0 | 2631 | 0 | 2791 | 0 | 2951 | 0 | 3111 | 0 |
| 2312 | 0 | 2472 | 0 | 2632 | 0 | 2792 | 0 | 2952 | 0 | 3112 | 0 |
| 2321 | 0 | 2481 | 0 | 2641 | 0 | 2801 | 0 | 2961 | 0 | 3121 | 0 |
| 2322 | 0 | 2482 | 0 | 2642 | 0 | 2802 | 0 | 2962 | 0 | 3122 | 0 |
| 4461 | 0 | 4621 | 0 | 4781 | 0 | 4941 | 0 | 5101 | 0 | 5261 | 0 |
| 4471 | 0 | 4622 | 0 | 4782 | 0 | 4942 | 0 | 5102 | 0 | 5262 | 0 |
| 4472 | 0 | 4641 | 0 | 4791 | 0 | 4951 | 0 | 5111 | 0 | 5271 | 0 |
| 4481 | 0 | 4642 | 0 | 4792 | 0 | 4952 | 0 | 5112 | 0 | 5272 | 0 |
| 4482 | 0 | 6761 | 1 | 6891 | 0 | 4961 | 0 | 7171 | 0 | 5281 | 0 |
| 6611 | 0 | 6762 | 0 | 6892 | 0 | 4962 | 0 | 7172 | 0 | 5282 | 0 |
| 6612 | 0 | 8591 | 0 | 6901 | 0 | 7031 | 0 | 9011 | 0 | 7311 | 0 |
| 6621 | 0 | 8592 | 0 | 6902 | 0 | 7032 | 0 | 9012 | 0 | 7312 | 0 |
| 6622 | 0 | 8601 | 0 | 8731 | 0 | 7041 | 0 | | | 7321 | 0 |
| 8461 | 0 | 8602 | 0 | 8732 | 1 | 7042 | 0 | | | 7322 | 0 |
| 8462 | 0 | | | | | 8871 | 0 | | | 9151 | 0 |
| | | | | | | 8872 | 0 | | | 9152 | 0 |

Mammary Gland Fibroadenoma - Female**1 Year Continuous Dose**

Count = Number per Animal

| EE2 0.05 | | EE2 0.5 | |
|----------|-------|---------|-------|
| CID | Count | CID | Count |
| 1061 | 0 | 1181 | 0 |
| 1062 | 0 | 1182 | 0 |
| 1071 | 0 | 1191 | 0 |
| 1072 | 1 | 1192 | 0 |
| 1081 | 0 | 1201 | 0 |
| 1082 | 0 | 1202 | 0 |
| 3221 | 0 | 3341 | 0 |
| 3222 | 0 | 3342 | 0 |
| 3231 | 0 | 3351 | 0 |
| 3232 | 0 | 3352 | 0 |
| 3241 | 0 | 3361 | 0 |
| 3242 | 0 | 3362 | 0 |
| 5381 | 0 | 5501 | 0 |
| 5382 | 0 | 5502 | 1 |
| 5391 | 0 | 5511 | 0 |
| 5392 | 0 | 5512 | 0 |
| 5401 | 0 | 5521 | 0 |
| 5402 | 0 | 5522 | 1 |
| 7391 | 0 | 7471 | 0 |
| 7392 | 0 | 7472 | 0 |
| 7401 | 0 | 7481 | 0 |
| 7402 | 0 | 7482 | 0 |
| 9231 | 1 | 9311 | 0 |
| 9232 | 0 | 9312 | 0 |
| 9241 | 0 | 9321 | 1 |
| 9242 | 0 | 9322 | 1 |

Mammary Gland Adenoma - Female

1 Year Continuous Dose

Count = Number per Animal

| EE2 0.05 | | EE2 0.5 | |
|----------|-------|---------|-------|
| CID | Count | CID | Count |
| 1061 | 0 | 1181 | 0 |
| 1062 | 0 | 1182 | 0 |
| 1071 | 0 | 1191 | 0 |
| 1072 | 0 | 1192 | 0 |
| 1081 | 0 | 1201 | 0 |
| 1082 | 0 | 1202 | 0 |
| 3221 | 0 | 3341 | 0 |
| 3222 | 0 | 3342 | 0 |
| 3231 | 0 | 3351 | 0 |
| 3232 | 0 | 3352 | 0 |
| 3241 | 0 | 3361 | 0 |
| 3242 | 0 | 3362 | 0 |
| 5381 | 0 | 5501 | 0 |
| 5382 | 0 | 5502 | 0 |
| 5391 | 0 | 5511 | 0 |
| 5392 | 0 | 5512 | 0 |
| 5401 | 0 | 5521 | 0 |
| 5402 | 0 | 5522 | 0 |
| 7391 | 0 | 7471 | 0 |
| 7392 | 0 | 7472 | 0 |
| 7401 | 0 | 7481 | 0 |
| 7402 | 0 | 7482 | 0 |
| 9231 | 0 | 9311 | 0 |
| 9232 | 0 | 9312 | 0 |
| 9241 | 0 | 9321 | 0 |
| 9242 | 0 | 9322 | 0 |

Mammary Gland Adenocarcinoma - Female**1 Year Continuous Dose**

Count = Number per Animal

| EE2 0.05 | | EE2 0.5 | |
|----------|-------|---------|-------|
| CID | Count | CID | Count |
| 1061 | 0 | 1181 | 0 |
| 1062 | 0 | 1182 | 0 |
| 1071 | 0 | 1191 | 0 |
| 1072 | 0 | 1192 | 0 |
| 1081 | 1 | 1201 | 0 |
| 1082 | 0 | 1202 | 0 |
| 3221 | 0 | 3341 | 0 |
| 3222 | 0 | 3342 | 0 |
| 3231 | 0 | 3351 | 0 |
| 3232 | 0 | 3352 | 0 |
| 3241 | 0 | 3361 | 0 |
| 3242 | 0 | 3362 | 0 |
| 5381 | 0 | 5501 | 0 |
| 5382 | 0 | 5502 | 0 |
| 5391 | 0 | 5511 | 0 |
| 5392 | 0 | 5512 | 0 |
| 5401 | 0 | 5521 | 0 |
| 5402 | 0 | 5522 | 0 |
| 7391 | 0 | 7471 | 0 |
| 7392 | 0 | 7472 | 0 |
| 7401 | 0 | 7481 | 0 |
| 7402 | 0 | 7482 | 0 |
| 9231 | 0 | 9311 | 0 |
| 9232 | 0 | 9312 | 0 |
| 9241 | 0 | 9321 | 0 |
| 9242 | 0 | 9322 | 0 |

Mammary Gland Fibroadenoma - Female

1 Year Stop Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|-------|----------|-------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 1351 | 0 | 1501 | 0 | 1661 | 0 | 1821 | 0 | 1981 | 0 | 2141 | 0 |
| 1352 | 0 | 1502 | 0 | 1662 | 0 | 1822 | 0 | 1982 | 0 | 2142 | 0 |
| 1361 | 0 | 1511 | 0 | 1671 | 0 | 1831 | 0 | 1991 | 1 | 2151 | 0 |
| 1362 | 1 | 1512 | 1 | 1672 | 0 | 1832 | 0 | 1992 | 0 | 2152 | 0 |
| 3501 | 0 | 1521 | 0 | 1681 | 0 | 1841 | 0 | 2001 | 0 | 2161 | 0 |
| 3502 | 0 | 1522 | 0 | 1682 | 0 | 1842 | 0 | 2002 | 0 | 2162 | 0 |
| 3511 | 0 | 3661 | 0 | 3821 | 1 | 3981 | 0 | 4141 | 0 | 4301 | 0 |
| 3512 | 0 | 3662 | 0 | 3822 | 0 | 3982 | 0 | 4142 | 0 | 4302 | 0 |
| 3521 | 0 | 3671 | 0 | 3831 | 0 | 3991 | 0 | 4151 | 0 | 4311 | 1 |
| 3522 | 0 | 3672 | 0 | 3832 | 0 | 3992 | 1 | 4152 | 0 | 4312 | 0 |
| 5661 | 1 | 3681 | 0 | 3841 | 0 | 4001 | 0 | 4161 | 0 | 4321 | 0 |
| 5662 | 0 | 3682 | 0 | 3842 | 0 | 4002 | 0 | 4162 | 0 | 4322 | 0 |
| 5671 | 0 | 5821 | 0 | 5981 | 0 | 6141 | 0 | 6301 | 0 | 6461 | 0 |
| 5672 | 1 | 5822 | 0 | 5982 | 0 | 6142 | 0 | 6302 | 0 | 6462 | 0 |
| 7621 | 0 | 5831 | 0 | 7891 | 0 | 8031 | 0 | 6311 | 0 | 6471 | 1 |
| 7622 | 0 | 5832 | 0 | 7892 | 0 | 8032 | 0 | 6312 | 0 | 6472 | 0 |
| 9451 | 0 | 5841 | 0 | 7901 | 0 | 8041 | 0 | 8171 | 0 | 6481 | 0 |
| 9452 | 0 | 5842 | 0 | 7902 | 0 | 8042 | 0 | 8172 | 0 | 6482 | 0 |
| 9461 | 1 | 7761 | 0 | 9731 | 0 | 8881 | 0 | 10011 | 0 | 8311 | 0 |
| 9462 | 0 | 7762 | 0 | 9732 | 0 | 8882 | 0 | 10012 | 0 | 8312 | 0 |
| | | 9591 | 0 | | | 9871 | 0 | | | 8321 | 0 |
| | | 9592 | 0 | | | 9872 | 0 | | | 8322 | 0 |

Mammary Gland Adenoma - Female**1 Year Stop Dose**

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|-------|----------|-------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 1351 | 0 | 1501 | 0 | 1661 | 0 | 1821 | 0 | 1981 | 0 | 2141 | 0 |
| 1352 | 0 | 1502 | 0 | 1662 | 0 | 1822 | 0 | 1982 | 0 | 2142 | 0 |
| 1361 | 0 | 1511 | 0 | 1671 | 0 | 1831 | 0 | 1991 | 0 | 2151 | 0 |
| 1362 | 0 | 1512 | 0 | 1672 | 0 | 1832 | 0 | 1992 | 0 | 2152 | 0 |
| 3501 | 0 | 1521 | 0 | 1681 | 0 | 1841 | 0 | 2001 | 0 | 2161 | 0 |
| 3502 | 0 | 1522 | 0 | 1682 | 0 | 1842 | 0 | 2002 | 0 | 2162 | 0 |
| 3511 | 0 | 3661 | 0 | 3821 | 0 | 3981 | 0 | 4141 | 0 | 4301 | 0 |
| 3512 | 0 | 3662 | 0 | 3822 | 0 | 3982 | 0 | 4142 | 0 | 4302 | 0 |
| 3521 | 0 | 3671 | 0 | 3831 | 0 | 3991 | 0 | 4151 | 0 | 4311 | 0 |
| 3522 | 0 | 3672 | 0 | 3832 | 0 | 3992 | 0 | 4152 | 0 | 4312 | 0 |
| 5661 | 0 | 3681 | 0 | 3841 | 0 | 4001 | 0 | 4161 | 0 | 4321 | 0 |
| 5662 | 0 | 3682 | 0 | 3842 | 0 | 4002 | 0 | 4162 | 0 | 4322 | 0 |
| 5671 | 0 | 5821 | 0 | 5981 | 0 | 6141 | 0 | 6301 | 0 | 6461 | 0 |
| 5672 | 0 | 5822 | 0 | 5982 | 0 | 6142 | 0 | 6302 | 0 | 6462 | 0 |
| 7621 | 0 | 5831 | 0 | 7891 | 0 | 8031 | 0 | 6311 | 0 | 6471 | 0 |
| 7622 | 0 | 5832 | 0 | 7892 | 0 | 8032 | 0 | 6312 | 0 | 6472 | 0 |
| 9451 | 0 | 5841 | 0 | 7901 | 0 | 8041 | 0 | 8171 | 0 | 6481 | 0 |
| 9452 | 0 | 5842 | 0 | 7902 | 0 | 8042 | 0 | 8172 | 0 | 6482 | 0 |
| 9461 | 0 | 7761 | 0 | 9731 | 0 | 8881 | 0 | 10011 | 0 | 8311 | 0 |
| 9462 | 0 | 7762 | 0 | 9732 | 0 | 8882 | 0 | 10012 | 0 | 8312 | 0 |
| | | 9591 | 0 | | | 9871 | 0 | | | 8321 | 0 |
| | | 9592 | 0 | | | 9872 | 0 | | | 8322 | 0 |

Mammary Gland Adenocarcinoma - Female**1 Year Stop Dose**

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|-------|----------|-------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 1351 | 0 | 1501 | 0 | 1661 | 0 | 1821 | 0 | 1981 | 0 | 2141 | 0 |
| 1352 | 0 | 1502 | 0 | 1662 | 0 | 1822 | 0 | 1982 | 0 | 2142 | 0 |
| 1361 | 0 | 1511 | 0 | 1671 | 0 | 1831 | 0 | 1991 | 0 | 2151 | 0 |
| 1362 | 0 | 1512 | 0 | 1672 | 0 | 1832 | 0 | 1992 | 0 | 2152 | 0 |
| 3501 | 0 | 1521 | 0 | 1681 | 0 | 1841 | 0 | 2001 | 0 | 2161 | 0 |
| 3502 | 0 | 1522 | 0 | 1682 | 0 | 1842 | 0 | 2002 | 0 | 2162 | 0 |
| 3511 | 0 | 3661 | 0 | 3821 | 0 | 3981 | 0 | 4141 | 0 | 4301 | 0 |
| 3512 | 0 | 3662 | 0 | 3822 | 0 | 3982 | 0 | 4142 | 0 | 4302 | 0 |
| 3521 | 0 | 3671 | 0 | 3831 | 0 | 3991 | 0 | 4151 | 0 | 4311 | 0 |
| 3522 | 0 | 3672 | 0 | 3832 | 0 | 3992 | 0 | 4152 | 0 | 4312 | 0 |
| 5661 | 0 | 3681 | 0 | 3841 | 0 | 4001 | 0 | 4161 | 0 | 4321 | 0 |
| 5662 | 0 | 3682 | 0 | 3842 | 0 | 4002 | 0 | 4162 | 0 | 4322 | 0 |
| 5671 | 0 | 5821 | 0 | 5981 | 0 | 6141 | 0 | 6301 | 0 | 6461 | 0 |
| 5672 | 0 | 5822 | 0 | 5982 | 0 | 6142 | 0 | 6302 | 0 | 6462 | 0 |
| 7621 | 0 | 5831 | 0 | 7891 | 0 | 8031 | 0 | 6311 | 0 | 6471 | 0 |
| 7622 | 0 | 5832 | 0 | 7892 | 0 | 8032 | 0 | 6312 | 0 | 6472 | 0 |
| 9451 | 0 | 5841 | 0 | 7901 | 0 | 8041 | 0 | 8171 | 0 | 6481 | 0 |
| 9452 | 0 | 5842 | 0 | 7902 | 0 | 8042 | 0 | 8172 | 0 | 6482 | 0 |
| 9461 | 0 | 7761 | 0 | 9731 | 0 | 8881 | 0 | 10011 | 0 | 8311 | 0 |
| 9462 | 0 | 7762 | 0 | 9732 | 0 | 8882 | 0 | 10012 | 0 | 8312 | 0 |
| | | 9591 | 0 | | | 9871 | 0 | | | 8321 | 0 |
| | | 9592 | 0 | | | 9872 | 0 | | | 8322 | 0 |

Mammary Gland Fibroadenoma - Male

2 Year Continuous Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|---------|----------|---------|-----------|---------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 11 | 0 | 171 | 0 | 331 | 0 | 491 | 0 | 651 | 0 | 811 | 0 |
| 12 | 0 | 172 | 0 | 332 | 0 | 492 | 0 | 652 | 0 | 812 | 0 |
| 21 | 0 | 181 | 0 | 341 | 0 | 501 | 0 | 661 | 0 | 821 | 0 |
| 22 | 0 | 182 | 0 | 342 | 0 | 502 | 0 | 662 | 0 | 822 | 0 |
| 31 | 0 | 191 | 0 | 351 | 0 | 511 | 0 | 671 | 0 | 831 | 0 |
| 32 | 0 | 192 | 0 | 352 | 0 | 512 | 0 | 672 | 0 | 832 | 0 |
| 41 | 0 | 201 | 0 | 361 | 0 | 521 | 0 | 681 | 0 | 841 | 0 |
| 42 | 0 | 202 | 0 | 362 | 0 | 522 | 0 | 682 | 0 | 842 | 0 |
| 51 | 0 | 211 | 0 | 371 | 0 | 531 | 0 | 691 | 0 | 851 | 0 |
| 52 | 0 | 212 | 0 | 372 | 0 | 532 | 1 | 692 | 1 | 852 | 0 |
| 2171 | 0 | 2331 | 0 | 2491 | 0 | 2651 | 0 | 2811 | 0 | 2971 | 0 |
| 2172 | 0 | 2332 | 2 | 2492 | 0 | 2652 | 0 | 2812 | 0 | 2972 | 0 |
| 2181 | 0 | 2341 | 1 | 2501 | 0 | 2661 | 0 | 2821 | 0 | 2981 | 0 |
| 2182 | 0 | 2342 | 0 | 2502 | 0 | 2662 | 0 | 2822 | 0 | 2982 | 0 |
| 2191 | 0 | 2351 | 0 | 2511 | 0 | 2671 | 0 | 2831 | 0 | 2991 | 0 |
| 2192 | 0 | 2352 | 0 | 2512 | 0 | 2672 | 0 | 2832 | Missing | 2992 | 0 |
| 2201 | 0 | 2361 | 0 | 2521 | 0 | 2681 | 0 | 2841 | 0 | 3001 | 0 |
| 2202 | 0 | 2362 | 0 | 2522 | 0 | 2682 | 0 | 2842 | 0 | 3002 | 0 |
| 2211 | 0 | 2371 | 0 | 2531 | 0 | 2691 | 0 | 2851 | 0 | 3011 | 0 |
| 2212 | 0 | 2372 | 0 | 2532 | 0 | 2692 | 0 | 2852 | 0 | 3012 | 0 |
| 4331 | 0 | 4491 | 0 | 4651 | 0 | 4811 | 0 | 4971 | 0 | 5131 | 0 |
| 4332 | 0 | 4492 | 0 | 4652 | 0 | 4812 | 0 | 4972 | 0 | 5132 | 0 |
| 4341 | 0 | 4501 | 0 | 4661 | 0 | 4821 | 0 | 4981 | 0 | 5141 | 0 |
| 4342 | 0 | 4502 | 0 | 4662 | 0 | 4822 | 0 | 4982 | 0 | 5142 | 0 |
| 4351 | 0 | 4511 | 0 | 4671 | 0 | 4831 | 0 | 4991 | 0 | 5151 | 0 |
| 4352 | 0 | 4512 | 0 | 4672 | 0 | 4832 | 0 | 4992 | 0 | 5152 | 0 |
| 4361 | 0 | 4521 | 0 | 4681 | 0 | 4841 | Missing | 5001 | 0 | 5161 | 0 |
| 4362 | 0 | 4522 | 0 | 4682 | 0 | 4842 | 0 | 5002 | 0 | 5162 | 0 |
| 4371 | 0 | 4531 | 0 | 4691 | 0 | 4851 | 0 | 5011 | 0 | 5171 | 0 |
| 4372 | 0 | 4532 | 0 | 4692 | 0 | 4852 | 0 | 5012 | 0 | 5172 | 0 |
| 6491 | 0 | 4551 | 0 | 6771 | 0 | 6911 | 0 | 7051 | 0 | 7191 | 0 |
| 6492 | 0 | 4552 | 0 | 6772 | 0 | 6912 | 0 | 7052 | 0 | 7192 | 0 |
| 6501 | 0 | 6641 | 0 | 6781 | 0 | 6921 | 0 | 7061 | 0 | 7201 | 0 |
| 6502 | 0 | 6642 | 0 | 6782 | 0 | 6922 | 0 | 7062 | 0 | 7202 | 0 |
| 6511 | 0 | 6651 | 0 | 6791 | 0 | 6931 | 0 | 7071 | 0 | 7211 | 0 |
| 6512 | 0 | 6652 | 0 | 6792 | 0 | 6932 | 0 | 7072 | 0 | 7212 | 0 |
| 6521 | 0 | 6661 | 0 | 6801 | 0 | 6941 | 0 | 7081 | 0 | 7221 | 0 |
| 6522 | 0 | 6662 | 0 | 6802 | 0 | 6942 | 0 | 7082 | 2 | 7222 | 0 |
| 6531 | 0 | 6671 | 0 | 6811 | 0 | 6951 | 0 | 7091 | 0 | 7231 | 0 |
| 6532 | 0 | 6672 | 0 | 6812 | 0 | 6952 | 1 | 7092 | 0 | 7232 | 0 |
| 8331 | 0 | 8471 | 0 | 8611 | 0 | 8751 | 0 | 8891 | 0 | 9031 | 0 |
| 8332 | 0 | 8472 | 0 | 8612 | 0 | 8752 | 0 | 8892 | 0 | 9032 | Missing |
| 8341 | 0 | 8481 | 0 | 8621 | 0 | 8761 | 0 | 8901 | 0 | 9041 | 1 |
| 8342 | 0 | 8482 | 0 | 8622 | 0 | 8762 | 0 | 8902 | 0 | 9042 | 0 |
| 8351 | 0 | 8491 | 0 | 8631 | 1 | 8771 | 0 | 8911 | 0 | 9051 | 0 |
| 8352 | 0 | 8492 | 0 | 8632 | 0 | 8772 | 0 | 8912 | 0 | 9052 | 0 |
| 8361 | 0 | 8501 | 0 | 8641 | 0 | 8781 | 0 | 8921 | 0 | | |
| 8362 | 0 | 8502 | 0 | 8642 | 0 | 8782 | 0 | 8922 | 0 | | |
| 8371 | 0 | | | | | 8791 | 0 | 8931 | 0 | | |
| 8372 | 0 | | | | | 8792 | 0 | 8932 | 0 | | |

Mammary Gland Adenoma - Male

2 Year Continuous Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|---------|----------|---------|-----------|---------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 11 | 0 | 171 | 0 | 331 | 0 | 491 | 0 | 651 | 0 | 811 | 0 |
| 12 | 0 | 172 | 0 | 332 | 0 | 492 | 0 | 652 | 0 | 812 | 0 |
| 21 | 0 | 181 | 0 | 341 | 0 | 501 | 0 | 661 | 0 | 821 | 0 |
| 22 | 0 | 182 | 0 | 342 | 0 | 502 | 0 | 662 | 0 | 822 | 0 |
| 31 | 0 | 191 | 0 | 351 | 0 | 511 | 0 | 671 | 0 | 831 | 0 |
| 32 | 0 | 192 | 0 | 352 | 0 | 512 | 0 | 672 | 0 | 832 | 0 |
| 41 | 0 | 201 | 0 | 361 | 0 | 521 | 0 | 681 | 0 | 841 | 0 |
| 42 | 0 | 202 | 0 | 362 | 0 | 522 | 0 | 682 | 0 | 842 | 0 |
| 51 | 0 | 211 | 0 | 371 | 0 | 531 | 0 | 691 | 0 | 851 | 0 |
| 52 | 0 | 212 | 0 | 372 | 0 | 532 | 0 | 692 | 0 | 852 | 0 |
| 2171 | 0 | 2331 | 0 | 2491 | 0 | 2651 | 0 | 2811 | 0 | 2971 | 0 |
| 2172 | 0 | 2332 | 0 | 2492 | 0 | 2652 | 0 | 2812 | 0 | 2972 | 0 |
| 2181 | 0 | 2341 | 0 | 2501 | 0 | 2661 | 0 | 2821 | 0 | 2981 | 0 |
| 2182 | 0 | 2342 | 0 | 2502 | 0 | 2662 | 0 | 2822 | 0 | 2982 | 0 |
| 2191 | 0 | 2351 | 0 | 2511 | 0 | 2671 | 0 | 2831 | 0 | 2991 | 0 |
| 2192 | 0 | 2352 | 0 | 2512 | 0 | 2672 | 0 | 2832 | Missing | 2992 | 0 |
| 2201 | 0 | 2361 | 0 | 2521 | 0 | 2681 | 0 | 2841 | 0 | 3001 | 0 |
| 2202 | 0 | 2362 | 0 | 2522 | 0 | 2682 | 0 | 2842 | 0 | 3002 | 0 |
| 2211 | 0 | 2371 | 0 | 2531 | 0 | 2691 | 0 | 2851 | 0 | 3011 | 0 |
| 2212 | 0 | 2372 | 0 | 2532 | 0 | 2692 | 0 | 2852 | 0 | 3012 | 0 |
| 4331 | 0 | 4491 | 0 | 4651 | 0 | 4811 | 0 | 4971 | 0 | 5131 | 0 |
| 4332 | 0 | 4492 | 0 | 4652 | 0 | 4812 | 0 | 4972 | 0 | 5132 | 0 |
| 4341 | 0 | 4501 | 0 | 4661 | 0 | 4821 | 0 | 4981 | 0 | 5141 | 0 |
| 4342 | 0 | 4502 | 0 | 4662 | 0 | 4822 | 0 | 4982 | 0 | 5142 | 0 |
| 4351 | 0 | 4511 | 0 | 4671 | 0 | 4831 | 0 | 4991 | 0 | 5151 | 0 |
| 4352 | 0 | 4512 | 0 | 4672 | 0 | 4832 | 0 | 4992 | 0 | 5152 | 0 |
| 4361 | 0 | 4521 | 0 | 4681 | 0 | 4841 | Missing | 5001 | 0 | 5161 | 0 |
| 4362 | 0 | 4522 | 0 | 4682 | 0 | 4842 | 0 | 5002 | 0 | 5162 | 0 |
| 4371 | 0 | 4531 | 0 | 4691 | 0 | 4851 | 0 | 5011 | 0 | 5171 | 0 |
| 4372 | 0 | 4532 | 0 | 4692 | 0 | 4852 | 0 | 5012 | 0 | 5172 | 0 |
| 6491 | 0 | 4551 | 0 | 6771 | 0 | 6911 | 0 | 7051 | 0 | 7191 | 0 |
| 6492 | 0 | 4552 | 0 | 6772 | 0 | 6912 | 0 | 7052 | 0 | 7192 | 0 |
| 6501 | 0 | 6641 | 0 | 6781 | 0 | 6921 | 0 | 7061 | 0 | 7201 | 0 |
| 6502 | 0 | 6642 | 0 | 6782 | 0 | 6922 | 0 | 7062 | 0 | 7202 | 0 |
| 6511 | 0 | 6651 | 0 | 6791 | 0 | 6931 | 0 | 7071 | 0 | 7211 | 0 |
| 6512 | 0 | 6652 | 0 | 6792 | 0 | 6932 | 0 | 7072 | 0 | 7212 | 0 |
| 6521 | 0 | 6661 | 0 | 6801 | 0 | 6941 | 0 | 7081 | 0 | 7221 | 0 |
| 6522 | 0 | 6662 | 0 | 6802 | 0 | 6942 | 0 | 7082 | 0 | 7222 | 0 |
| 6531 | 0 | 6671 | 0 | 6811 | 0 | 6951 | 0 | 7091 | 0 | 7231 | 0 |
| 6532 | 0 | 6672 | 0 | 6812 | 0 | 6952 | 0 | 7092 | 0 | 7232 | 0 |
| 8331 | 0 | 8471 | 0 | 8611 | 0 | 8751 | 0 | 8891 | 0 | 9031 | 0 |
| 8332 | 0 | 8472 | 0 | 8612 | 0 | 8752 | 0 | 8892 | 0 | 9032 | Missing |
| 8341 | 0 | 8481 | 0 | 8621 | 0 | 8761 | 0 | 8901 | 0 | 9041 | 0 |
| 8342 | 0 | 8482 | 0 | 8622 | 0 | 8762 | 0 | 8902 | 0 | 9042 | 0 |
| 8351 | 0 | 8491 | 0 | 8631 | 0 | 8771 | 0 | 8911 | 0 | 9051 | 0 |
| 8352 | 0 | 8492 | 0 | 8632 | 0 | 8772 | 0 | 8912 | 0 | 9052 | 0 |
| 8361 | 0 | 8501 | 0 | 8641 | 0 | 8781 | 0 | 8921 | 0 | | |
| 8362 | 0 | 8502 | 0 | 8642 | 0 | 8782 | 0 | 8922 | 0 | | |
| 8371 | 0 | | | | | 8791 | 0 | 8931 | 0 | | |
| 8372 | 0 | | | | | 8792 | 0 | 8932 | 0 | | |

Mammary Gland Adenocarcinoma - Male
2 Year Continuous Dose
Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|---------|----------|---------|-----------|---------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 11 | 0 | 171 | 0 | 331 | 0 | 491 | 0 | 651 | 0 | 811 | 0 |
| 12 | 0 | 172 | 0 | 332 | 0 | 492 | 0 | 652 | 0 | 812 | 0 |
| 21 | 0 | 181 | 0 | 341 | 0 | 501 | 0 | 661 | 0 | 821 | 0 |
| 22 | 0 | 182 | 0 | 342 | 0 | 502 | 0 | 662 | 0 | 822 | 0 |
| 31 | 0 | 191 | 0 | 351 | 0 | 511 | 0 | 671 | 0 | 831 | 0 |
| 32 | 0 | 192 | 0 | 352 | 0 | 512 | 0 | 672 | 0 | 832 | 0 |
| 41 | 0 | 201 | 0 | 361 | 0 | 521 | 0 | 681 | 0 | 841 | 0 |
| 42 | 0 | 202 | 0 | 362 | 0 | 522 | 0 | 682 | 0 | 842 | 0 |
| 51 | 0 | 211 | 0 | 371 | 0 | 531 | 0 | 691 | 0 | 851 | 0 |
| 52 | 0 | 212 | 0 | 372 | 0 | 532 | 0 | 692 | 0 | 852 | 0 |
| 2171 | 0 | 2331 | 0 | 2491 | 0 | 2651 | 0 | 2811 | 0 | 2971 | 0 |
| 2172 | 0 | 2332 | 0 | 2492 | 0 | 2652 | 0 | 2812 | 0 | 2972 | 0 |
| 2181 | 0 | 2341 | 0 | 2501 | 0 | 2661 | 0 | 2821 | 0 | 2981 | 0 |
| 2182 | 0 | 2342 | 0 | 2502 | 0 | 2662 | 0 | 2822 | 0 | 2982 | 0 |
| 2191 | 0 | 2351 | 0 | 2511 | 0 | 2671 | 0 | 2831 | 0 | 2991 | 0 |
| 2192 | 0 | 2352 | 0 | 2512 | 0 | 2672 | 0 | 2832 | Missing | 2992 | 0 |
| 2201 | 0 | 2361 | 0 | 2521 | 0 | 2681 | 0 | 2841 | 0 | 3001 | 0 |
| 2202 | 0 | 2362 | 0 | 2522 | 0 | 2682 | 0 | 2842 | 0 | 3002 | 0 |
| 2211 | 0 | 2371 | 0 | 2531 | 0 | 2691 | 0 | 2851 | 0 | 3011 | 0 |
| 2212 | 0 | 2372 | 0 | 2532 | 0 | 2692 | 0 | 2852 | 0 | 3012 | 0 |
| 4331 | 0 | 4491 | 0 | 4651 | 0 | 4811 | 0 | 4971 | 0 | 5131 | 0 |
| 4332 | 0 | 4492 | 0 | 4652 | 0 | 4812 | 0 | 4972 | 0 | 5132 | 0 |
| 4341 | 0 | 4501 | 0 | 4661 | 0 | 4821 | 0 | 4981 | 0 | 5141 | 0 |
| 4342 | 0 | 4502 | 0 | 4662 | 0 | 4822 | 0 | 4982 | 0 | 5142 | 0 |
| 4351 | 0 | 4511 | 0 | 4671 | 0 | 4831 | 0 | 4991 | 0 | 5151 | 0 |
| 4352 | 0 | 4512 | 0 | 4672 | 0 | 4832 | 0 | 4992 | 0 | 5152 | 0 |
| 4361 | 0 | 4521 | 0 | 4681 | 0 | 4841 | Missing | 5001 | 0 | 5161 | 0 |
| 4362 | 0 | 4522 | 0 | 4682 | 0 | 4842 | 0 | 5002 | 0 | 5162 | 0 |
| 4371 | 0 | 4531 | 0 | 4691 | 0 | 4851 | 0 | 5011 | 0 | 5171 | 0 |
| 4372 | 0 | 4532 | 0 | 4692 | 0 | 4852 | 0 | 5012 | 0 | 5172 | 0 |
| 6491 | 0 | 4551 | 0 | 6771 | 0 | 6911 | 0 | 7051 | 0 | 7191 | 0 |
| 6492 | 0 | 4552 | 0 | 6772 | 0 | 6912 | 0 | 7052 | 0 | 7192 | 0 |
| 6501 | 0 | 6641 | 0 | 6781 | 0 | 6921 | 0 | 7061 | 0 | 7201 | 0 |
| 6502 | 0 | 6642 | 0 | 6782 | 0 | 6922 | 0 | 7062 | 0 | 7202 | 0 |
| 6511 | 2 | 6651 | 0 | 6791 | 0 | 6931 | 0 | 7071 | 0 | 7211 | 0 |
| 6512 | 0 | 6652 | 0 | 6792 | 0 | 6932 | 0 | 7072 | 0 | 7212 | 0 |
| 6521 | 0 | 6661 | 0 | 6801 | 0 | 6941 | 0 | 7081 | 0 | 7221 | 0 |
| 6522 | 0 | 6662 | 0 | 6802 | 0 | 6942 | 0 | 7082 | 0 | 7222 | 0 |
| 6531 | 0 | 6671 | 0 | 6811 | 0 | 6951 | 0 | 7091 | 0 | 7231 | 0 |
| 6532 | 0 | 6672 | 0 | 6812 | 0 | 6952 | 0 | 7092 | 0 | 7232 | 0 |
| 8331 | 0 | 8471 | 0 | 8611 | 0 | 8751 | 0 | 8891 | 0 | 9031 | 0 |
| 8332 | 0 | 8472 | 0 | 8612 | 0 | 8752 | 0 | 8892 | 0 | 9032 | Missing |
| 8341 | 0 | 8481 | 0 | 8621 | 0 | 8761 | 0 | 8901 | 0 | 9041 | 0 |
| 8342 | 0 | 8482 | 0 | 8622 | 0 | 8762 | 0 | 8902 | 0 | 9042 | 0 |
| 8351 | 0 | 8491 | 0 | 8631 | 0 | 8771 | 0 | 8911 | 0 | 9051 | 0 |
| 8352 | 0 | 8492 | 0 | 8632 | 0 | 8772 | 0 | 8912 | 0 | 9052 | 0 |
| 8361 | 0 | 8501 | 0 | 8641 | 0 | 8781 | 0 | 8921 | 0 | | |
| 8362 | 0 | 8502 | 0 | 8642 | 0 | 8782 | 0 | 8922 | 0 | | |
| 8371 | 0 | | | | | 8791 | 0 | 8931 | 0 | | |
| 8372 | 0 | | | | | 8792 | 0 | 8932 | 0 | | |

Mammary Gland Fibroadenoma - Male

2 Year Continuous Dose

Count = Number per Animal

| EE2 0.05 | | EE2 0.5 | |
|----------|---------|---------|-------|
| CID | Count | CID | Count |
| 971 | Missing | 1091 | 0 |
| 972 | 0 | 1092 | 0 |
| 981 | 0 | 1101 | APD |
| 982 | 0 | 1102 | 0 |
| 991 | 0 | 1111 | 0 |
| 992 | 0 | 1112 | 0 |
| 3131 | 0 | 3251 | 0 |
| 3132 | 0 | 3252 | 0 |
| 3141 | 0 | 3261 | 0 |
| 3142 | 0 | 3262 | 0 |
| 3151 | 0 | 3271 | 0 |
| 3152 | 0 | 3272 | 0 |
| 5291 | 0 | 5411 | 0 |
| 5292 | 0 | 5412 | 0 |
| 5301 | 0 | 5421 | 0 |
| 5302 | 0 | 5422 | 0 |
| 5311 | 0 | 5431 | 0 |
| 5312 | 0 | 5432 | 0 |
| 7331 | 0 | 7411 | 0 |
| 7332 | 0 | 7412 | 0 |
| 7341 | 0 | 7421 | 0 |
| 7342 | 0 | 7422 | 0 |
| 9171 | 0 | 9251 | 0 |
| 9172 | 0 | 9252 | 0 |
| 9181 | 0 | 9261 | 0 |
| 9182 | 0 | 9262 | 0 |

Mammary Gland Adenoma - Male**2 Year Continuous Dose**

Count = Number per Animal

| EE2 0.05 | | EE2 0.5 | |
|----------|---------|---------|-------|
| CID | Count | CID | Count |
| 971 | Missing | 1091 | 0 |
| 972 | 0 | 1092 | 0 |
| 981 | 0 | 1101 | APD |
| 982 | 0 | 1102 | 0 |
| 991 | 0 | 1111 | 0 |
| 992 | 0 | 1112 | 0 |
| 3131 | 0 | 3251 | 0 |
| 3132 | 0 | 3252 | 0 |
| 3141 | 0 | 3261 | 0 |
| 3142 | 0 | 3262 | 0 |
| 3151 | 0 | 3271 | 0 |
| 3152 | 0 | 3272 | 0 |
| 5291 | 0 | 5411 | 0 |
| 5292 | 0 | 5412 | 0 |
| 5301 | 0 | 5421 | 0 |
| 5302 | 0 | 5422 | 0 |
| 5311 | 0 | 5431 | 0 |
| 5312 | 0 | 5432 | 0 |
| 7331 | 0 | 7411 | 0 |
| 7332 | 0 | 7412 | 0 |
| 7341 | 0 | 7421 | 0 |
| 7342 | 0 | 7422 | 0 |
| 9171 | 0 | 9251 | 0 |
| 9172 | 0 | 9252 | 0 |
| 9181 | 0 | 9261 | 0 |
| 9182 | 0 | 9262 | 0 |

Mammary Gland Adenocarcinoma - Male**2 Year Continuous Dose**

Count = Number per Animal

| EE2 0.05 | | EE2 0.5 | |
|----------|---------|---------|-------|
| CID | Count | CID | Count |
| 971 | Missing | 1091 | 0 |
| 972 | 0 | 1092 | 0 |
| 981 | 0 | 1101 | APD |
| 982 | 0 | 1102 | 0 |
| 991 | 0 | 1111 | 0 |
| 992 | 0 | 1112 | 0 |
| 3131 | 0 | 3251 | 0 |
| 3132 | 0 | 3252 | 0 |
| 3141 | 0 | 3261 | 0 |
| 3142 | 0 | 3262 | 0 |
| 3151 | 0 | 3271 | 0 |
| 3152 | 0 | 3272 | 0 |
| 5291 | 0 | 5411 | 1 |
| 5292 | 0 | 5412 | 0 |
| 5301 | 0 | 5421 | 0 |
| 5302 | 0 | 5422 | 0 |
| 5311 | 0 | 5431 | 0 |
| 5312 | 0 | 5432 | 0 |
| 7331 | 0 | 7411 | 0 |
| 7332 | 0 | 7412 | 0 |
| 7341 | 0 | 7421 | 0 |
| 7342 | 0 | 7422 | 0 |
| 9171 | 0 | 9251 | 0 |
| 9172 | 0 | 9252 | 0 |
| 9181 | 0 | 9261 | 0 |
| 9182 | 0 | 9262 | 0 |

Mammary Gland Fibroadenoma - Male

2 Year Stop Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|---------|---------|-------|----------|---------|-----------|---------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 1211 | 0 | 1371 | 0 | 1531 | 0 | 1691 | 0 | 1851 | 0 | 2011 | 0 |
| 1212 | 0 | 1372 | 0 | 1532 | 0 | 1692 | 0 | 1852 | 0 | 2012 | 0 |
| 1221 | 0 | 1381 | 0 | 1541 | 0 | 1701 | 0 | 1861 | 0 | 2021 | 0 |
| 1222 | 0 | 1382 | 0 | 1542 | 0 | 1702 | 0 | 1862 | 0 | 2022 | 0 |
| 1231 | 0 | 1391 | 0 | 1551 | 0 | 1711 | 0 | 1871 | 0 | 2031 | 0 |
| 1232 | 0 | 1392 | 0 | 1552 | 0 | 1712 | 1 | 1872 | 0 | 2032 | 0 |
| 1241 | 0 | 1401 | 0 | 1561 | 0 | 1721 | 0 | 1881 | 0 | 2041 | 0 |
| 1242 | 0 | 1402 | 0 | 1562 | 0 | 1722 | 0 | 1882 | 0 | 2042 | 0 |
| 1251 | 0 | 1411 | 0 | 1571 | 0 | 1731 | 0 | 1891 | 0 | 2051 | 0 |
| 1252 | 0 | 1412 | 0 | 1572 | 0 | 1732 | 0 | 1892 | 0 | 2052 | 0 |
| 3371 | 0 | 3531 | 0 | 3691 | 0 | 3851 | 0 | 4011 | 0 | 4171 | 0 |
| 3372 | 0 | 3532 | 0 | 3692 | 0 | 3852 | 0 | 4012 | 0 | 4172 | 0 |
| 3381 | 0 | 3541 | 0 | 3701 | 0 | 3861 | 0 | 4021 | 0 | 4181 | 0 |
| 3382 | 0 | 3542 | 0 | 3702 | 0 | 3862 | 0 | 4022 | 1 | 4182 | 0 |
| 3391 | 0 | 3551 | 0 | 3711 | 0 | 3871 | 0 | 4031 | 0 | 4191 | 0 |
| 3392 | 0 | 3552 | 0 | 3712 | 0 | 3872 | 0 | 4032 | 0 | 4192 | 0 |
| 3401 | 0 | 3561 | 0 | 3721 | 0 | 3881 | 0 | 4041 | Missing | 4201 | 0 |
| 3402 | 0 | 3562 | 0 | 3722 | 0 | 3882 | 0 | 4042 | 0 | 4202 | 0 |
| 3411 | APD | 3571 | 0 | 3731 | 0 | 3891 | 0 | 4051 | 0 | 4211 | 0 |
| 3412 | 0 | 3572 | 0 | 3732 | 0 | 3892 | 0 | 4052 | 0 | 4212 | 0 |
| 5531 | 0 | 5691 | 0 | 5851 | 0 | 6011 | 0 | 6171 | 0 | 6331 | 0 |
| 5532 | 0 | 5692 | 0 | 5852 | 0 | 6012 | 0 | 6172 | 0 | 6332 | 0 |
| 5541 | 0 | 5701 | 0 | 5861 | 0 | 6021 | 0 | 6181 | 0 | 6341 | 0 |
| 5542 | 0 | 5702 | 0 | 5862 | 0 | 6022 | 0 | 6182 | 0 | 6342 | 0 |
| 5551 | 0 | 5711 | 0 | 5871 | 0 | 6031 | 0 | 6191 | 0 | 6351 | 0 |
| 5552 | 0 | 5712 | 0 | 5872 | Missing | 6032 | 0 | 6192 | 0 | 6352 | 0 |
| 5561 | 0 | 5721 | 0 | 5881 | 0 | 6041 | 0 | 6201 | 0 | 6361 | 0 |
| 5562 | 0 | 5722 | 0 | 5882 | 0 | 6042 | 0 | 6202 | 0 | 6362 | 0 |
| 5571 | 0 | 5731 | 0 | 5891 | 0 | 6051 | 0 | 6211 | 0 | 6371 | 0 |
| 5572 | 0 | 5732 | 0 | 5892 | 0 | 6052 | 0 | 6212 | 0 | 6372 | 0 |
| 7491 | 1 | 7631 | 0 | 7771 | 0 | 7911 | 0 | 8051 | 0 | 8191 | 0 |
| 7492 | 0 | 7632 | 0 | 7772 | 0 | 7912 | 0 | 8052 | 0 | 8192 | 0 |
| 7501 | 0 | 7641 | 0 | 7781 | 0 | 7921 | 0 | 8061 | 0 | 8201 | 1 |
| 7502 | 0 | 7642 | 0 | 7782 | 0 | 7922 | 0 | 8062 | 1 | 8202 | 0 |
| 7511 | 0 | 7651 | 0 | 7791 | 0 | 7931 | 0 | 8071 | 0 | 8211 | Missing |
| 7512 | 0 | 7652 | 0 | 7792 | 0 | 7932 | 0 | 8072 | 0 | 8212 | 0 |
| 7521 | 0 | 7661 | 0 | 7801 | 0 | 7941 | 0 | 8081 | 0 | 8221 | 0 |
| 7522 | 0 | 7662 | 0 | 7802 | 0 | 7942 | 0 | 8082 | 0 | 8222 | 0 |
| 7531 | 0 | 7671 | 0 | 7811 | 0 | 7951 | 0 | 8091 | 0 | 8231 | 0 |
| 7532 | 0 | 7672 | 0 | 7812 | 0 | 7952 | 0 | 8092 | 1 | 8232 | 0 |
| 9331 | 0 | 7691 | 0 | 9611 | 1 | 9751 | 0 | 9891 | 0 | 10031 | 0 |
| 9332 | 0 | 7692 | 0 | 9612 | 0 | 9752 | 0 | 9892 | 0 | 10032 | 0 |
| 9341 | 0 | 9471 | 0 | 9621 | 0 | 9761 | 0 | 9901 | 0 | 10041 | 0 |
| 9342 | 0 | 9472 | 0 | 9622 | 0 | 9762 | 0 | 9902 | 0 | 10042 | 0 |
| 9351 | 0 | 9481 | 0 | 9631 | 0 | 9771 | 0 | 9911 | 0 | 10051 | 0 |
| 9352 | 0 | 9482 | 0 | 9632 | 0 | 9772 | 0 | 9912 | 0 | 10052 | 0 |
| 9361 | 0 | 9491 | 0 | 9641 | 0 | 9781 | 0 | 9921 | 0 | | |
| 9362 | 0 | 9492 | 1 | 9642 | 0 | 9782 | 0 | 9922 | 0 | | |
| 9371 | 0 | | | | | 9791 | 0 | 9931 | 0 | | |
| 9372 | 0 | | | | | 9792 | 0 | 9932 | 0 | | |

APD = Autolysis Precludes Diagnosis

Mammary Gland Adenoma - Male

2 Year Stop Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|---------|---------|-------|----------|---------|-----------|---------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 1211 | 0 | 1371 | 0 | 1531 | 0 | 1691 | 0 | 1851 | 0 | 2011 | 0 |
| 1212 | 0 | 1372 | 0 | 1532 | 0 | 1692 | 0 | 1852 | 0 | 2012 | 0 |
| 1221 | 0 | 1381 | 0 | 1541 | 0 | 1701 | 0 | 1861 | 0 | 2021 | 0 |
| 1222 | 0 | 1382 | 0 | 1542 | 0 | 1702 | 0 | 1862 | 0 | 2022 | 0 |
| 1231 | 0 | 1391 | 0 | 1551 | 0 | 1711 | 0 | 1871 | 0 | 2031 | 0 |
| 1232 | 0 | 1392 | 0 | 1552 | 0 | 1712 | 0 | 1872 | 0 | 2032 | 0 |
| 1241 | 0 | 1401 | 0 | 1561 | 0 | 1721 | 0 | 1881 | 0 | 2041 | 0 |
| 1242 | 0 | 1402 | 0 | 1562 | 0 | 1722 | 0 | 1882 | 0 | 2042 | 0 |
| 1251 | 0 | 1411 | 0 | 1571 | 0 | 1731 | 0 | 1891 | 0 | 2051 | 0 |
| 1252 | 0 | 1412 | 0 | 1572 | 0 | 1732 | 0 | 1892 | 0 | 2052 | 0 |
| 3371 | 0 | 3531 | 0 | 3691 | 0 | 3851 | 0 | 4011 | 0 | 4171 | 0 |
| 3372 | 0 | 3532 | 0 | 3692 | 0 | 3852 | 0 | 4012 | 0 | 4172 | 0 |
| 3381 | 0 | 3541 | 0 | 3701 | 0 | 3861 | 0 | 4021 | 0 | 4181 | 0 |
| 3382 | 0 | 3542 | 0 | 3702 | 0 | 3862 | 0 | 4022 | 0 | 4182 | 0 |
| 3391 | 0 | 3551 | 0 | 3711 | 0 | 3871 | 0 | 4031 | 0 | 4191 | 0 |
| 3392 | 0 | 3552 | 0 | 3712 | 0 | 3872 | 0 | 4032 | 0 | 4192 | 0 |
| 3401 | 0 | 3561 | 0 | 3721 | 0 | 3881 | 0 | 4041 | Missing | 4201 | 0 |
| 3402 | 0 | 3562 | 0 | 3722 | 0 | 3882 | 0 | 4042 | 0 | 4202 | 0 |
| 3411 | APD | 3571 | 0 | 3731 | 0 | 3891 | 0 | 4051 | 0 | 4211 | 0 |
| 3412 | 0 | 3572 | 0 | 3732 | 0 | 3892 | 0 | 4052 | 0 | 4212 | 0 |
| 5531 | 0 | 5691 | 0 | 5851 | 0 | 6011 | 0 | 6171 | 1 | 6331 | 0 |
| 5532 | 0 | 5692 | 0 | 5852 | 0 | 6012 | 0 | 6172 | 0 | 6332 | 0 |
| 5541 | 0 | 5701 | 0 | 5861 | 0 | 6021 | 0 | 6181 | 0 | 6341 | 0 |
| 5542 | 0 | 5702 | 0 | 5862 | 0 | 6022 | 0 | 6182 | 0 | 6342 | 0 |
| 5551 | 0 | 5711 | 0 | 5871 | 0 | 6031 | 0 | 6191 | 0 | 6351 | 0 |
| 5552 | 0 | 5712 | 0 | 5872 | Missing | 6032 | 0 | 6192 | 0 | 6352 | 0 |
| 5561 | 0 | 5721 | 0 | 5881 | 0 | 6041 | 0 | 6201 | 0 | 6361 | 0 |
| 5562 | 0 | 5722 | 0 | 5882 | 0 | 6042 | 0 | 6202 | 0 | 6362 | 0 |
| 5571 | 0 | 5731 | 0 | 5891 | 0 | 6051 | 0 | 6211 | 0 | 6371 | 0 |
| 5572 | 0 | 5732 | 0 | 5892 | 0 | 6052 | 0 | 6212 | 0 | 6372 | 0 |
| 7491 | 0 | 7631 | 0 | 7771 | 0 | 7911 | 0 | 8051 | 0 | 8191 | 0 |
| 7492 | 0 | 7632 | 0 | 7772 | 0 | 7912 | 0 | 8052 | 0 | 8192 | 0 |
| 7501 | 0 | 7641 | 0 | 7781 | 0 | 7921 | 0 | 8061 | 0 | 8201 | 0 |
| 7502 | 0 | 7642 | 0 | 7782 | 0 | 7922 | 0 | 8062 | 0 | 8202 | 0 |
| 7511 | 0 | 7651 | 0 | 7791 | 0 | 7931 | 0 | 8071 | 0 | 8211 | Missing |
| 7512 | 0 | 7652 | 0 | 7792 | 0 | 7932 | 0 | 8072 | 0 | 8212 | 0 |
| 7521 | 0 | 7661 | 0 | 7801 | 0 | 7941 | 0 | 8081 | 0 | 8221 | 0 |
| 7522 | 0 | 7662 | 0 | 7802 | 0 | 7942 | 0 | 8082 | 0 | 8222 | 0 |
| 7531 | 0 | 7671 | 0 | 7811 | 0 | 7951 | 0 | 8091 | 0 | 8231 | 0 |
| 7532 | 0 | 7672 | 0 | 7812 | 0 | 7952 | 0 | 8092 | 0 | 8232 | 0 |
| 9331 | 0 | 7691 | 0 | 9611 | 0 | 9751 | 0 | 9891 | 0 | 10031 | 0 |
| 9332 | 0 | 7692 | 0 | 9612 | 0 | 9752 | 0 | 9892 | 0 | 10032 | 0 |
| 9341 | 0 | 9471 | 0 | 9621 | 0 | 9761 | 0 | 9901 | 0 | 10041 | 0 |
| 9342 | 0 | 9472 | 0 | 9622 | 0 | 9762 | 0 | 9902 | 0 | 10042 | 0 |
| 9351 | 0 | 9481 | 0 | 9631 | 0 | 9771 | 0 | 9911 | 0 | 10051 | 0 |
| 9352 | 0 | 9482 | 0 | 9632 | 0 | 9772 | 0 | 9912 | 0 | 10052 | 0 |
| 9361 | 0 | 9491 | 0 | 9641 | 0 | 9781 | 0 | 9921 | 0 | | |
| 9362 | 0 | 9492 | 0 | 9642 | 0 | 9782 | 0 | 9922 | 0 | | |
| 9371 | 0 | | | | | 9791 | 0 | 9931 | 0 | | |
| 9372 | 0 | | | | | 9792 | 0 | 9932 | 0 | | |

APD = Autolysis Precludes Diagnosis

Mammary Gland Adenocarcinoma - Male

2 Year Stop Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|---------|---------|-------|----------|---------|-----------|---------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 1211 | 0 | 1371 | 0 | 1531 | 0 | 1691 | 0 | 1851 | 0 | 2011 | 0 |
| 1212 | 0 | 1372 | 0 | 1532 | 0 | 1692 | 0 | 1852 | 0 | 2012 | 0 |
| 1221 | 0 | 1381 | 0 | 1541 | 0 | 1701 | 0 | 1861 | 0 | 2021 | 0 |
| 1222 | 0 | 1382 | 0 | 1542 | 0 | 1702 | 0 | 1862 | 0 | 2022 | 0 |
| 1231 | 0 | 1391 | 0 | 1551 | 0 | 1711 | 0 | 1871 | 0 | 2031 | 0 |
| 1232 | 0 | 1392 | 0 | 1552 | 0 | 1712 | 0 | 1872 | 0 | 2032 | 0 |
| 1241 | 0 | 1401 | 0 | 1561 | 0 | 1721 | 0 | 1881 | 0 | 2041 | 0 |
| 1242 | 0 | 1402 | 0 | 1562 | 0 | 1722 | 0 | 1882 | 0 | 2042 | 0 |
| 1251 | 0 | 1411 | 0 | 1571 | 0 | 1731 | 0 | 1891 | 0 | 2051 | 0 |
| 1252 | 0 | 1412 | 0 | 1572 | 0 | 1732 | 0 | 1892 | 0 | 2052 | 0 |
| 3371 | 0 | 3531 | 0 | 3691 | 0 | 3851 | 0 | 4011 | 0 | 4171 | 0 |
| 3372 | 0 | 3532 | 0 | 3692 | 0 | 3852 | 0 | 4012 | 0 | 4172 | 0 |
| 3381 | 0 | 3541 | 0 | 3701 | 0 | 3861 | 0 | 4021 | 0 | 4181 | 0 |
| 3382 | 0 | 3542 | 0 | 3702 | 0 | 3862 | 0 | 4022 | 0 | 4182 | 0 |
| 3391 | 0 | 3551 | 0 | 3711 | 0 | 3871 | 0 | 4031 | 0 | 4191 | 0 |
| 3392 | 0 | 3552 | 0 | 3712 | 0 | 3872 | 0 | 4032 | 0 | 4192 | 0 |
| 3401 | 0 | 3561 | 0 | 3721 | 0 | 3881 | 0 | 4041 | Missing | 4201 | 0 |
| 3402 | 0 | 3562 | 0 | 3722 | 0 | 3882 | 0 | 4042 | 0 | 4202 | 0 |
| 3411 | APD | 3571 | 0 | 3731 | 0 | 3891 | 0 | 4051 | 0 | 4211 | 0 |
| 3412 | 0 | 3572 | 0 | 3732 | 0 | 3892 | 0 | 4052 | 0 | 4212 | 0 |
| 5531 | 0 | 5691 | 0 | 5851 | 0 | 6011 | 0 | 6171 | 0 | 6331 | 0 |
| 5532 | 0 | 5692 | 0 | 5852 | 0 | 6012 | 0 | 6172 | 0 | 6332 | 0 |
| 5541 | 0 | 5701 | 0 | 5861 | 0 | 6021 | 0 | 6181 | 0 | 6341 | 0 |
| 5542 | 0 | 5702 | 0 | 5862 | 0 | 6022 | 0 | 6182 | 0 | 6342 | 0 |
| 5551 | 0 | 5711 | 0 | 5871 | 0 | 6031 | 0 | 6191 | 0 | 6351 | 0 |
| 5552 | 0 | 5712 | 0 | 5872 | Missing | 6032 | 0 | 6192 | 0 | 6352 | 0 |
| 5561 | 0 | 5721 | 0 | 5881 | 0 | 6041 | 0 | 6201 | 0 | 6361 | 0 |
| 5562 | 0 | 5722 | 0 | 5882 | 0 | 6042 | 0 | 6202 | 0 | 6362 | 0 |
| 5571 | 0 | 5731 | 0 | 5891 | 0 | 6051 | 0 | 6211 | 0 | 6371 | 0 |
| 5572 | 0 | 5732 | 0 | 5892 | 0 | 6052 | 0 | 6212 | 0 | 6372 | 0 |
| 7491 | 0 | 7631 | 0 | 7771 | 0 | 7911 | 0 | 8051 | 0 | 8191 | 0 |
| 7492 | 0 | 7632 | 0 | 7772 | 0 | 7912 | 0 | 8052 | 0 | 8192 | 0 |
| 7501 | 0 | 7641 | 0 | 7781 | 0 | 7921 | 0 | 8061 | 0 | 8201 | 0 |
| 7502 | 0 | 7642 | 0 | 7782 | 0 | 7922 | 0 | 8062 | 0 | 8202 | 0 |
| 7511 | 0 | 7651 | 0 | 7791 | 0 | 7931 | 0 | 8071 | 0 | 8211 | Missing |
| 7512 | 0 | 7652 | 0 | 7792 | 0 | 7932 | 0 | 8072 | 0 | 8212 | 0 |
| 7521 | 0 | 7661 | 0 | 7801 | 0 | 7941 | 0 | 8081 | 0 | 8221 | 0 |
| 7522 | 0 | 7662 | 0 | 7802 | 0 | 7942 | 0 | 8082 | 0 | 8222 | 0 |
| 7531 | 0 | 7671 | 0 | 7811 | 0 | 7951 | 0 | 8091 | 0 | 8231 | 0 |
| 7532 | 0 | 7672 | 0 | 7812 | 0 | 7952 | 0 | 8092 | 0 | 8232 | 0 |
| 9331 | 0 | 7691 | 0 | 9611 | 0 | 9751 | 0 | 9891 | 0 | 10031 | 0 |
| 9332 | 0 | 7692 | 0 | 9612 | 0 | 9752 | 0 | 9892 | 0 | 10032 | 0 |
| 9341 | 0 | 9471 | 0 | 9621 | 0 | 9761 | 0 | 9901 | 0 | 10041 | 0 |
| 9342 | 0 | 9472 | 0 | 9622 | 0 | 9762 | 0 | 9902 | 0 | 10042 | 0 |
| 9351 | 0 | 9481 | 0 | 9631 | 0 | 9771 | 0 | 9911 | 0 | 10051 | 0 |
| 9352 | 0 | 9482 | 0 | 9632 | 0 | 9772 | 0 | 9912 | 0 | 10052 | 0 |
| 9361 | 0 | 9491 | 0 | 9641 | 0 | 9781 | 0 | 9921 | 0 | | |
| 9362 | 0 | 9492 | 0 | 9642 | 0 | 9782 | 0 | 9922 | 0 | | |
| 9371 | 0 | | | | | 9791 | 0 | 9931 | 0 | | |
| 9372 | 0 | | | | | 9792 | 0 | 9932 | 0 | | |

APD = Autolysis Precludes Diagnosis

Mammary Gland Fibroadenoma - Female

2 Year Continuous Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|-------|----------|-------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 91 | 2 | 251 | 0 | 411 | 0 | 572 | 1 | 731 | 3 | 891 | 1 |
| 92 | 0 | 252 | 0 | 412 | 5 | 581 | 2 | 732 | 1 | 892 | 4 |
| 101 | 0 | 261 | 2 | 421 | 1 | 582 | 0 | 741 | 0 | 901 | 1 |
| 102 | 0 | 262 | 1 | 422 | 4 | 591 | 4 | 742 | 0 | 902 | 2 |
| 111 | 3 | 271 | 4 | 431 | 2 | 592 | 4 | 751 | 0 | 911 | 3 |
| 112 | 1 | 272 | 2 | 432 | 0 | 601 | 1 | 752 | 3 | 912 | 2 |
| 121 | 3 | 281 | 1 | 441 | 0 | 602 | 6 | 761 | 1 | 921 | 2 |
| 122 | 1 | 282 | 1 | 442 | 0 | 611 | 4 | 762 | 3 | 922 | 0 |
| 131 | 1 | 291 | 4 | 451 | 3 | 612 | 1 | 771 | 1 | 931 | 1 |
| 132 | 1 | 292 | 5 | 452 | 0 | 2731 | 2 | 772 | 2 | 932 | 0 |
| 2251 | 0 | 2411 | 2 | 2571 | 1 | 2732 | 2 | 2891 | 1 | 3051 | 2 |
| 2252 | 0 | 2412 | 2 | 2572 | 1 | 2741 | 0 | 2892 | 1 | 3052 | 3 |
| 2261 | 4 | 2421 | 2 | 2581 | 1 | 2742 | 0 | 2901 | 0 | 3061 | 4 |
| 2262 | 1 | 2422 | 5 | 2582 | 0 | 2751 | 2 | 2902 | 1 | 3062 | 2 |
| 2271 | 2 | 2431 | 1 | 2591 | 1 | 2752 | 2 | 2911 | 0 | 3071 | 2 |
| 2272 | 0 | 2432 | 0 | 2592 | 2 | 2761 | 0 | 2912 | 0 | 3072 | 2 |
| 2281 | 1 | 2441 | 1 | 2601 | 1 | 2762 | 2 | 2921 | 2 | 3081 | 2 |
| 2282 | 6 | 2442 | 3 | 2602 | 4 | 2771 | 2 | 2922 | 0 | 3082 | 3 |
| 2291 | 3 | 2451 | 4 | 2611 | 0 | 2772 | 1 | 2931 | 1 | 3091 | 0 |
| 2292 | 2 | 2452 | 2 | 2612 | 4 | 4891 | 2 | 2932 | 1 | 3092 | 0 |
| 4411 | 5 | 4571 | 1 | 4731 | 0 | 4892 | 0 | 5051 | 0 | 5211 | 2 |
| 4412 | 1 | 4572 | 1 | 4732 | 1 | 4901 | 2 | 5052 | 0 | 5212 | 2 |
| 4421 | 3 | 4581 | 2 | 4741 | 3 | 4902 | 3 | 5061 | 2 | 5221 | 2 |
| 4422 | 5 | 4582 | 3 | 4742 | 1 | 4911 | 3 | 5062 | 2 | 5222 | 3 |
| 4431 | 1 | 4591 | 0 | 4751 | 3 | 4912 | 3 | 5071 | 3 | 5231 | 1 |
| 4432 | 0 | 4592 | 5 | 4752 | 1 | 4921 | 0 | 5072 | 0 | 5232 | 5 |
| 4441 | 2 | 4601 | 4 | 4761 | 0 | 4922 | 0 | 5081 | 5 | 5241 | 0 |
| 4442 | 6 | 4602 | 1 | 4762 | 4 | 4931 | 3 | 5082 | 0 | 5242 | 3 |
| 4451 | 1 | 4611 | 0 | 4771 | 0 | 4932 | 1 | 5091 | 2 | 5251 | 4 |
| 4452 | 1 | 4612 | 0 | 4772 | 0 | 6981 | 7 | 5092 | 2 | 5252 | 2 |
| 6561 | 1 | 6701 | 2 | 6841 | 1 | 6982 | 0 | 7121 | 2 | 7261 | 0 |
| 6562 | 1 | 6702 | 4 | 6842 | 3 | 6991 | 1 | 7122 | 4 | 7262 | 4 |
| 6571 | 1 | 6711 | 0 | 6851 | 3 | 6992 | 2 | 7131 | 4 | 7271 | 1 |
| 6572 | 1 | 6712 | 2 | 6852 | 2 | 7001 | 3 | 7132 | 0 | 7272 | 1 |
| 6581 | 1 | 6721 | 2 | 6861 | 3 | 7002 | 3 | 7141 | 1 | 7281 | 2 |
| 6582 | 6 | 6722 | 3 | 6862 | 2 | 7011 | 2 | 7142 | 1 | 7282 | 2 |
| 6591 | 2 | 6731 | 5 | 6871 | 1 | 7012 | 2 | 7151 | 6 | 7291 | 1 |
| 6592 | 1 | 6732 | 3 | 6872 | 1 | 7021 | 5 | 7152 | 5 | 7292 | 3 |
| 6601 | 2 | 6741 | 3 | 6881 | 0 | 7022 | 5 | 7161 | 1 | 7301 | 3 |
| 6602 | 1 | 6742 | 5 | 6882 | 7 | 8821 | 4 | 7162 | 2 | 7302 | 0 |
| 8401 | 2 | 8541 | 2 | 8681 | 7 | 8822 | 2 | 8961 | 1 | 9101 | 2 |
| 8402 | 0 | 8542 | 2 | 8682 | 5 | 8831 | 1 | 8962 | 5 | 9102 | 3 |
| 8411 | 1 | 8551 | 2 | 8691 | 3 | 8832 | 2 | 8971 | 0 | 9111 | 0 |
| 8412 | 2 | 8552 | 2 | 8692 | 6 | 8841 | 0 | 8972 | 1 | 9112 | 3 |
| 8421 | 1 | 8561 | 2 | 8701 | 0 | 8842 | 4 | 8981 | 0 | 9121 | 2 |
| 8422 | 1 | 8562 | 0 | 8702 | 1 | 8851 | 0 | 8982 | 1 | 9122 | 5 |
| 8431 | 3 | 8571 | 5 | | | 8852 | 3 | 8991 | 0 | | |
| 8432 | 0 | 8572 | 3 | | | 8861 | 6 | 8992 | 2 | | |
| 8441 | 3 | | | | | 8862 | 2 | 9001 | 1 | | |
| 8442 | 4 | | | | | | | 9002 | 2 | | |

Mammary Gland Adenoma - Female

2 Year Continuous Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|-------|----------|-------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 91 | 0 | 251 | 0 | 411 | 0 | 572 | 0 | 731 | 0 | 891 | 0 |
| 92 | 0 | 252 | 0 | 412 | 0 | 581 | 0 | 732 | 0 | 892 | 1 |
| 101 | 0 | 261 | 0 | 421 | 0 | 582 | 0 | 741 | 0 | 901 | 0 |
| 102 | 0 | 262 | 0 | 422 | 0 | 591 | 0 | 742 | 0 | 902 | 0 |
| 111 | 0 | 271 | 0 | 431 | 0 | 592 | 0 | 751 | 0 | 911 | 0 |
| 112 | 0 | 272 | 0 | 432 | 0 | 601 | 0 | 752 | 0 | 912 | 0 |
| 121 | 0 | 281 | 0 | 441 | 0 | 602 | 0 | 761 | 0 | 921 | 0 |
| 122 | 0 | 282 | 0 | 442 | 0 | 611 | 0 | 762 | 0 | 922 | 0 |
| 131 | 0 | 291 | 0 | 451 | 0 | 612 | 0 | 771 | 0 | 931 | 0 |
| 132 | 0 | 292 | 0 | 452 | 0 | 2731 | 0 | 772 | 0 | 932 | 0 |
| 2251 | 0 | 2411 | 0 | 2571 | 0 | 2732 | 0 | 2891 | 0 | 3051 | 0 |
| 2252 | 0 | 2412 | 0 | 2572 | 0 | 2741 | 0 | 2892 | 0 | 3052 | 0 |
| 2261 | 0 | 2421 | 1 | 2581 | 0 | 2742 | 0 | 2901 | 0 | 3061 | 0 |
| 2262 | 0 | 2422 | 0 | 2582 | 0 | 2751 | 0 | 2902 | 0 | 3062 | 0 |
| 2271 | 0 | 2431 | 0 | 2591 | 0 | 2752 | 0 | 2911 | 0 | 3071 | 0 |
| 2272 | 0 | 2432 | 0 | 2592 | 0 | 2761 | 0 | 2912 | 0 | 3072 | 0 |
| 2281 | 0 | 2441 | 0 | 2601 | 0 | 2762 | 0 | 2921 | 0 | 3081 | 0 |
| 2282 | 0 | 2442 | 0 | 2602 | 0 | 2771 | 0 | 2922 | 0 | 3082 | 0 |
| 2291 | 0 | 2451 | 0 | 2611 | 0 | 2772 | 0 | 2931 | 0 | 3091 | 0 |
| 2292 | 0 | 2452 | 0 | 2612 | 0 | 4891 | 0 | 2932 | 0 | 3092 | 0 |
| 4411 | 0 | 4571 | 0 | 4731 | 0 | 4892 | 0 | 5051 | 0 | 5211 | 0 |
| 4412 | 0 | 4572 | 0 | 4732 | 0 | 4901 | 0 | 5052 | 0 | 5212 | 0 |
| 4421 | 0 | 4581 | 0 | 4741 | 1 | 4902 | 2 | 5061 | 0 | 5221 | 0 |
| 4422 | 1 | 4582 | 0 | 4742 | 0 | 4911 | 0 | 5062 | 0 | 5222 | 0 |
| 4431 | 0 | 4591 | 0 | 4751 | 0 | 4912 | 0 | 5071 | 0 | 5231 | 0 |
| 4432 | 0 | 4592 | 0 | 4752 | 0 | 4921 | 0 | 5072 | 0 | 5232 | 0 |
| 4441 | 0 | 4601 | 0 | 4761 | 0 | 4922 | 0 | 5081 | 0 | 5241 | 0 |
| 4442 | 0 | 4602 | 0 | 4762 | 0 | 4931 | 0 | 5082 | 0 | 5242 | 0 |
| 4451 | 0 | 4611 | 0 | 4771 | 0 | 4932 | 0 | 5091 | 0 | 5251 | 0 |
| 4452 | 0 | 4612 | 0 | 4772 | 0 | 6981 | 0 | 5092 | 0 | 5252 | 0 |
| 6561 | 0 | 6701 | 0 | 6841 | 0 | 6982 | 0 | 7121 | 0 | 7261 | 0 |
| 6562 | 0 | 6702 | 0 | 6842 | 0 | 6991 | 0 | 7122 | 1 | 7262 | 0 |
| 6571 | 0 | 6711 | 0 | 6851 | 0 | 6992 | 0 | 7131 | 0 | 7271 | 0 |
| 6572 | 0 | 6712 | 0 | 6852 | 0 | 7001 | 0 | 7132 | 0 | 7272 | 0 |
| 6581 | 0 | 6721 | 0 | 6861 | 0 | 7002 | 0 | 7141 | 0 | 7281 | 0 |
| 6582 | 0 | 6722 | 0 | 6862 | 0 | 7011 | 0 | 7142 | 0 | 7282 | 0 |
| 6591 | 0 | 6731 | 0 | 6871 | 0 | 7012 | 0 | 7151 | 0 | 7291 | 0 |
| 6592 | 0 | 6732 | 0 | 6872 | 0 | 7021 | 0 | 7152 | 0 | 7292 | 0 |
| 6601 | 0 | 6741 | 0 | 6881 | 0 | 7022 | 0 | 7161 | 0 | 7301 | 0 |
| 6602 | 0 | 6742 | 0 | 6882 | 0 | 8821 | 0 | 7162 | 0 | 7302 | 0 |
| 8401 | 0 | 8541 | 0 | 8681 | 0 | 8822 | 0 | 8961 | 0 | 9101 | 0 |
| 8402 | 0 | 8542 | 0 | 8682 | 1 | 8831 | 0 | 8962 | 0 | 9102 | 0 |
| 8411 | 0 | 8551 | 0 | 8691 | 0 | 8832 | 0 | 8971 | 0 | 9111 | 0 |
| 8412 | 0 | 8552 | 0 | 8692 | 0 | 8841 | 0 | 8972 | 0 | 9112 | 0 |
| 8421 | 0 | 8561 | 0 | 8701 | 0 | 8842 | 0 | 8981 | 0 | 9121 | 0 |
| 8422 | 0 | 8562 | 0 | 8702 | 0 | 8851 | 0 | 8982 | 1 | 9122 | 0 |
| 8431 | 1 | 8571 | 0 | | | 8852 | 0 | 8991 | 0 | | |
| 8432 | 0 | 8572 | 0 | | | 8861 | 0 | 8992 | 0 | | |
| 8441 | 0 | | | | | 8862 | 0 | 9001 | 0 | | |
| 8442 | 0 | | | | | | | 9002 | 0 | | |

Mammary Gland Adenocarcinoma - Female

2 Year Continuous Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|-------|----------|-------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 91 | 0 | 251 | 0 | 411 | 0 | 572 | 0 | 731 | 1 | 891 | 0 |
| 92 | 0 | 252 | 0 | 412 | 0 | 581 | 0 | 732 | 0 | 892 | 0 |
| 101 | 0 | 261 | 1 | 421 | 1 | 582 | 0 | 741 | 0 | 901 | 0 |
| 102 | 0 | 262 | 0 | 422 | 0 | 591 | 0 | 742 | 0 | 902 | 0 |
| 111 | 0 | 271 | 0 | 431 | 0 | 592 | 1 | 751 | 0 | 911 | 2 |
| 112 | 0 | 272 | 0 | 432 | 3 | 601 | 0 | 752 | 0 | 912 | 0 |
| 121 | 0 | 281 | 0 | 441 | 0 | 602 | 0 | 761 | 0 | 921 | 0 |
| 122 | 0 | 282 | 0 | 442 | 0 | 611 | 0 | 762 | 1 | 922 | 0 |
| 131 | 0 | 291 | 0 | 451 | 0 | 612 | 0 | 771 | 0 | 931 | 0 |
| 132 | 2 | 292 | 0 | 452 | 0 | 2731 | 0 | 772 | 0 | 932 | 0 |
| 2251 | 0 | 2411 | 0 | 2571 | 0 | 2732 | 0 | 2891 | 0 | 3051 | 0 |
| 2252 | 0 | 2412 | 0 | 2572 | 0 | 2741 | 2 | 2892 | 0 | 3052 | 0 |
| 2261 | 0 | 2421 | 0 | 2581 | 0 | 2742 | 0 | 2901 | 0 | 3061 | 0 |
| 2262 | 0 | 2422 | 0 | 2582 | 0 | 2751 | 0 | 2902 | 0 | 3062 | 0 |
| 2271 | 0 | 2431 | 1 | 2591 | 2 | 2752 | 0 | 2911 | 0 | 3071 | 0 |
| 2272 | 0 | 2432 | 0 | 2592 | 0 | 2761 | 0 | 2912 | 0 | 3072 | 0 |
| 2281 | 0 | 2441 | 0 | 2601 | 0 | 2762 | 0 | 2921 | 2 | 3081 | 0 |
| 2282 | 0 | 2442 | 0 | 2602 | 0 | 2771 | 0 | 2922 | 0 | 3082 | 0 |
| 2291 | 0 | 2451 | 0 | 2611 | 0 | 2772 | 0 | 2931 | 2 | 3091 | 0 |
| 2292 | 1 | 2452 | 0 | 2612 | 0 | 4891 | 2 | 2932 | 0 | 3092 | 0 |
| 4411 | 0 | 4571 | 0 | 4731 | 0 | 4892 | 1 | 5051 | 0 | 5211 | 0 |
| 4412 | 0 | 4572 | 0 | 4732 | 0 | 4901 | 0 | 5052 | 0 | 5212 | 0 |
| 4421 | 0 | 4581 | 0 | 4741 | 0 | 4902 | 0 | 5061 | 0 | 5221 | 0 |
| 4422 | 0 | 4582 | 2 | 4742 | 0 | 4911 | 0 | 5062 | 1 | 5222 | 0 |
| 4431 | 0 | 4591 | 0 | 4751 | 0 | 4912 | 0 | 5071 | 0 | 5231 | 1 |
| 4432 | 0 | 4592 | 2 | 4752 | 0 | 4921 | 0 | 5072 | 0 | 5232 | 0 |
| 4441 | 0 | 4601 | 0 | 4761 | 0 | 4922 | 0 | 5081 | 0 | 5241 | 0 |
| 4442 | 0 | 4602 | 2 | 4762 | 0 | 4931 | 0 | 5082 | 0 | 5242 | 0 |
| 4451 | 0 | 4611 | 0 | 4771 | 0 | 4932 | 0 | 5091 | 0 | 5251 | 0 |
| 4452 | 0 | 4612 | 0 | 4772 | 0 | 6981 | 0 | 5092 | 0 | 5252 | 0 |
| 6561 | 0 | 6701 | 0 | 6841 | 1 | 6982 | 0 | 7121 | 0 | 7261 | 0 |
| 6562 | 0 | 6702 | 1 | 6842 | 1 | 6991 | 0 | 7122 | 1 | 7262 | 0 |
| 6571 | 0 | 6711 | 0 | 6851 | 0 | 6992 | 0 | 7131 | 2 | 7271 | 0 |
| 6572 | 2 | 6712 | 0 | 6852 | 0 | 7001 | 0 | 7132 | 0 | 7272 | 0 |
| 6581 | 0 | 6721 | 0 | 6861 | 0 | 7002 | 0 | 7141 | 1 | 7281 | 0 |
| 6582 | 0 | 6722 | 0 | 6862 | 0 | 7011 | 0 | 7142 | 0 | 7282 | 0 |
| 6591 | 0 | 6731 | 0 | 6871 | 0 | 7012 | 0 | 7151 | 0 | 7291 | 0 |
| 6592 | 0 | 6732 | 0 | 6872 | 0 | 7021 | 0 | 7152 | 1 | 7292 | 0 |
| 6601 | 0 | 6741 | 0 | 6881 | 0 | 7022 | 0 | 7161 | 0 | 7301 | 0 |
| 6602 | 0 | 6742 | 0 | 6882 | 0 | 8821 | 0 | 7162 | 0 | 7302 | 0 |
| 8401 | 0 | 8541 | 0 | 8681 | 0 | 8822 | 0 | 8961 | 0 | 9101 | 0 |
| 8402 | 0 | 8542 | 0 | 8682 | 0 | 8831 | 0 | 8962 | 0 | 9102 | 0 |
| 8411 | 0 | 8551 | 0 | 8691 | 0 | 8832 | 0 | 8971 | 0 | 9111 | 0 |
| 8412 | 0 | 8552 | 0 | 8692 | 0 | 8841 | 0 | 8972 | 0 | 9112 | 0 |
| 8421 | 0 | 8561 | 0 | 8701 | 0 | 8842 | 0 | 8981 | 0 | 9121 | 0 |
| 8422 | 0 | 8562 | 0 | 8702 | 2 | 8851 | 0 | 8982 | 0 | 9122 | 0 |
| 8431 | 0 | 8571 | 0 | | | 8852 | 1 | 8991 | 0 | | |
| 8432 | 0 | 8572 | 0 | | | 8861 | 0 | 8992 | 0 | | |
| 8441 | 1 | | | | | 8862 | 0 | 9001 | 0 | | |
| 8442 | 0 | | | | | | | 9002 | 0 | | |

Mammary Gland Fibroadenoma - Female**2 Year Continuous Dose**

Count = Number per Animal

| EE2 0.05 | | EE2 0.5 | |
|----------|-------|---------|-------|
| CID | Count | CID | Count |
| 1031 | 3 | 1151 | 2 |
| 1032 | 2 | 1152 | 0 |
| 1041 | 1 | 1161 | 1 |
| 1042 | 2 | 1162 | 0 |
| 1051 | 1 | 1171 | 0 |
| 1052 | 1 | 1172 | 1 |
| 3191 | 4 | 3311 | 1 |
| 3192 | 1 | 3312 | 1 |
| 3201 | 8 | 3321 | 1 |
| 3202 | 0 | 3322 | 0 |
| 3211 | 0 | 3331 | 4 |
| 3212 | 2 | 3332 | 0 |
| 5351 | 0 | 5471 | 0 |
| 5352 | 1 | 5472 | 1 |
| 5361 | 0 | 5481 | 5 |
| 5362 | 1 | 5482 | 0 |
| 5371 | 0 | 5491 | 1 |
| 5372 | 0 | 5492 | 4 |
| 7371 | 4 | 7451 | 1 |
| 7372 | 1 | 7452 | 0 |
| 7381 | 2 | 7461 | 0 |
| 7382 | 0 | 7462 | 0 |
| 9211 | 2 | 9291 | 0 |
| 9212 | 0 | 9292 | 1 |
| 9221 | 3 | 9301 | 1 |
| 9222 | 3 | 9302 | 0 |

Mammary Gland Adenoma - Female

2 Year Continuous Dose

Count = Number per Animal

| EE2 0.05 | | EE2 0.5 | |
|----------|-------|---------|-------|
| CID | Count | CID | Count |
| 1031 | 0 | 1151 | 0 |
| 1032 | 0 | 1152 | 0 |
| 1041 | 0 | 1161 | 0 |
| 1042 | 0 | 1162 | 0 |
| 1051 | 0 | 1171 | 0 |
| 1052 | 0 | 1172 | 0 |
| 3191 | 0 | 3311 | 0 |
| 3192 | 0 | 3312 | 0 |
| 3201 | 0 | 3321 | 0 |
| 3202 | 0 | 3322 | 0 |
| 3211 | 0 | 3331 | 0 |
| 3212 | 0 | 3332 | 0 |
| 5351 | 0 | 5471 | 0 |
| 5352 | 0 | 5472 | 0 |
| 5361 | 0 | 5481 | 0 |
| 5362 | 0 | 5482 | 0 |
| 5371 | 0 | 5491 | 0 |
| 5372 | 0 | 5492 | 0 |
| 7371 | 0 | 7451 | 0 |
| 7372 | 0 | 7452 | 0 |
| 7381 | 0 | 7461 | 0 |
| 7382 | 0 | 7462 | 0 |
| 9211 | 0 | 9291 | 0 |
| 9212 | 0 | 9292 | 0 |
| 9221 | 0 | 9301 | 0 |
| 9222 | 0 | 9302 | 0 |

Mammary Gland Adenocarcinoma - Female**2 Year Continuous Dose**

Count = Number per Animal

| EE2 0.05 | | EE2 0.5 | |
|----------|-------|---------|-------|
| CID | Count | CID | Count |
| 1031 | 1 | 1151 | 1 |
| 1032 | 0 | 1152 | 3 |
| 1041 | 0 | 1161 | 0 |
| 1042 | 0 | 1162 | 0 |
| 1051 | 0 | 1171 | 1 |
| 1052 | 0 | 1172 | 1 |
| 3191 | 0 | 3311 | 0 |
| 3192 | 0 | 3312 | 2 |
| 3201 | 0 | 3321 | 1 |
| 3202 | 1 | 3322 | 0 |
| 3211 | 0 | 3331 | 0 |
| 3212 | 0 | 3332 | 0 |
| 5351 | 0 | 5471 | 0 |
| 5352 | 0 | 5472 | 0 |
| 5361 | 0 | 5481 | 0 |
| 5362 | 0 | 5482 | 0 |
| 5371 | 0 | 5491 | 0 |
| 5372 | 0 | 5492 | 1 |
| 7371 | 0 | 7451 | 2 |
| 7372 | 0 | 7452 | 0 |
| 7381 | 0 | 7461 | 0 |
| 7382 | 0 | 7462 | 0 |
| 9211 | 0 | 9291 | 3 |
| 9212 | 0 | 9292 | 0 |
| 9221 | 0 | 9301 | 0 |
| 9222 | 0 | 9302 | 1 |

Mammary Gland Fibroadenoma - Female

2 Year Stop Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|-------|----------|-------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 1291 | 1 | 1451 | 2 | 1611 | 0 | 1771 | APD | 1931 | 0 | 2091 | 0 |
| 1292 | 1 | 1452 | 2 | 1612 | 1 | 1772 | 1 | 1932 | 0 | 2092 | 3 |
| 1301 | 3 | 1461 | 0 | 1621 | 2 | 1781 | 2 | 1941 | 3 | 2101 | 6 |
| 1302 | 5 | 1462 | 4 | 1622 | 3 | 1782 | 2 | 1942 | 2 | 2102 | 2 |
| 1311 | 2 | 1471 | 7 | 1631 | 4 | 1791 | 0 | 1951 | 0 | 2111 | 1 |
| 1312 | 3 | 1472 | 3 | 1632 | 0 | 1792 | 1 | 1952 | 7 | 2112 | 5 |
| 1321 | 1 | 1481 | 4 | 1641 | 3 | 1801 | 5 | 1961 | 2 | 2121 | 4 |
| 1322 | 3 | 1482 | 4 | 1642 | 5 | 1802 | 2 | 1962 | 1 | 2122 | 2 |
| 1331 | 1 | 1491 | 6 | 1651 | 4 | 1811 | 1 | 1971 | 0 | 2131 | 3 |
| 1332 | 0 | 1492 | 2 | 1652 | 0 | 1812 | 0 | 1972 | 4 | 2132 | 1 |
| 3451 | 2 | 3611 | 0 | 3771 | 0 | 3931 | 0 | 4091 | 1 | 4251 | 2 |
| 3452 | 2 | 3612 | 1 | 3772 | 2 | 3932 | 2 | 4092 | 1 | 4252 | 2 |
| 3461 | 4 | 3621 | 2 | 3781 | 4 | 3941 | 2 | 4101 | 1 | 4261 | 3 |
| 3462 | 1 | 3622 | 1 | 3782 | 1 | 3942 | 6 | 4102 | 2 | 4262 | 3 |
| 3471 | 0 | 3631 | 2 | 3791 | 4 | 3951 | 0 | 4111 | 1 | 4271 | 0 |
| 3472 | 1 | 3632 | 4 | 3792 | 0 | 3952 | 1 | 4112 | 0 | 4272 | 2 |
| 3481 | 1 | 3641 | 4 | 3801 | 1 | 3961 | 3 | 4121 | 4 | 4281 | 3 |
| 3482 | 3 | 3642 | 6 | 3802 | 1 | 3962 | 1 | 4122 | 0 | 4282 | 0 |
| 3491 | 5 | 3651 | 0 | 3811 | 1 | 3971 | 3 | 4131 | 0 | 4291 | 0 |
| 3492 | 3 | 3652 | 2 | 3812 | 3 | 3972 | 3 | 4132 | 2 | 4292 | 2 |
| 5611 | 1 | 5771 | 1 | 5931 | 2 | 6091 | 5 | 6251 | 2 | 6411 | 1 |
| 5612 | 2 | 5772 | 1 | 5932 | 1 | 6092 | 0 | 6252 | 0 | 6412 | 0 |
| 5621 | 6 | 5781 | 1 | 5941 | 2 | 6101 | 2 | 6261 | 4 | 6421 | 7 |
| 5622 | 1 | 5782 | 4 | 5942 | 0 | 6102 | 1 | 6262 | 7 | 6422 | 0 |
| 5631 | 2 | 5791 | 2 | 5951 | 3 | 6111 | 2 | 6271 | 0 | 6431 | 1 |
| 5632 | 1 | 5792 | 2 | 5952 | 5 | 6112 | 2 | 6272 | 0 | 6432 | 3 |
| 5641 | 3 | 5801 | 1 | 5961 | 0 | 6121 | 0 | 6281 | 5 | 6441 | 4 |
| 5642 | 6 | 5802 | 2 | 5962 | 2 | 6122 | 3 | 6282 | 0 | 6442 | 4 |
| 5651 | 0 | 5811 | 4 | 5971 | 0 | 6131 | 4 | 6291 | 0 | 6451 | 6 |
| 5652 | 1 | 5812 | 1 | 5972 | 1 | 6132 | 4 | 6292 | 3 | 6452 | 0 |
| 7561 | 3 | 7701 | 0 | 7841 | 0 | 7981 | 4 | 8121 | 4 | 8261 | 0 |
| 7562 | 0 | 7702 | 3 | 7842 | 2 | 7982 | 3 | 8122 | 1 | 8262 | 0 |
| 7571 | 0 | 7711 | 2 | 7851 | 3 | 7991 | 1 | 8131 | 2 | 8271 | 1 |
| 7572 | 3 | 7712 | 6 | 7852 | 3 | 7992 | 2 | 8132 | 2 | 8272 | 2 |
| 7581 | 1 | 7721 | 3 | 7861 | 2 | 8001 | 2 | 8141 | 0 | 8281 | 0 |
| 7582 | 2 | 7722 | 5 | 7862 | 0 | 8002 | 2 | 8142 | 1 | 8282 | 0 |
| 7591 | 3 | 7731 | 3 | 7871 | 0 | 8011 | 2 | 8151 | 2 | 8291 | 3 |
| 7592 | 3 | 7732 | 1 | 7872 | 1 | 8012 | 2 | 8152 | 3 | 8292 | 3 |
| 7601 | 5 | 7741 | 2 | 7881 | 3 | 8021 | 11 | 8161 | 6 | 8301 | 6 |
| 7602 | 3 | 7742 | 1 | 7882 | 3 | 8022 | 3 | 8162 | 7 | 8302 | 0 |
| 9401 | 2 | 9541 | 0 | 9681 | 2 | 9821 | 2 | 9961 | 2 | 10101 | 2 |
| 9402 | 3 | 9542 | 6 | 9682 | 2 | 9822 | 1 | 9962 | 8 | 10102 | 2 |
| 9411 | 1 | 9551 | 1 | 9691 | 2 | 9831 | 1 | 9971 | 5 | 10111 | 1 |
| 9412 | 7 | 9552 | 1 | 9692 | 4 | 9832 | 3 | 9972 | 4 | 10112 | 2 |
| 9421 | 2 | 9561 | 4 | 9701 | 5 | 9841 | 3 | 9981 | 2 | 10121 | 2 |
| 9422 | 0 | 9562 | 2 | 9702 | 5 | 9842 | 0 | 9982 | 3 | 10122 | 2 |
| 9431 | 2 | 9571 | 3 | 9711 | 1 | 9851 | 1 | 10001 | 2 | | |
| 9432 | 0 | 9572 | 1 | 9712 | 4 | 9852 | 4 | 10002 | 3 | | |
| 9441 | 1 | 9581 | 4 | | | 9861 | 1 | 10021 | 3 | | |
| 9442 | 5 | 9582 | 1 | | | 9862 | 3 | 10022 | 0 | | |

APD = Autolysis Precludes Diagnosis

Mammary Gland Adenoma - Female

2 Year Stop Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|-------|----------|-------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 1291 | 0 | 1451 | 0 | 1611 | 0 | 1771 | ADP | 1931 | 0 | 2091 | 0 |
| 1292 | 0 | 1452 | 0 | 1612 | 0 | 1772 | 0 | 1932 | 0 | 2092 | 0 |
| 1301 | 0 | 1461 | 0 | 1621 | 0 | 1781 | 0 | 1941 | 0 | 2101 | 0 |
| 1302 | 0 | 1462 | 0 | 1622 | 0 | 1782 | 0 | 1942 | 0 | 2102 | 0 |
| 1311 | 0 | 1471 | 0 | 1631 | 0 | 1791 | 0 | 1951 | 0 | 2111 | 0 |
| 1312 | 0 | 1472 | 0 | 1632 | 0 | 1792 | 0 | 1952 | 0 | 2112 | 0 |
| 1321 | 0 | 1481 | 0 | 1641 | 0 | 1801 | 0 | 1961 | 0 | 2121 | 0 |
| 1322 | 0 | 1482 | 0 | 1642 | 0 | 1802 | 0 | 1962 | 0 | 2122 | 0 |
| 1331 | 0 | 1491 | 0 | 1651 | 0 | 1811 | 0 | 1971 | 0 | 2131 | 0 |
| 1332 | 0 | 1492 | 0 | 1652 | 0 | 1812 | 0 | 1972 | 0 | 2132 | 0 |
| 3451 | 0 | 3611 | 0 | 3771 | 0 | 3931 | 0 | 4091 | 0 | 4251 | 0 |
| 3452 | 0 | 3612 | 0 | 3772 | 0 | 3932 | 0 | 4092 | 0 | 4252 | 1 |
| 3461 | 0 | 3621 | 0 | 3781 | 0 | 3941 | 0 | 4101 | 0 | 4261 | 0 |
| 3462 | 0 | 3622 | 0 | 3782 | 0 | 3942 | 0 | 4102 | 0 | 4262 | 0 |
| 3471 | 1 | 3631 | 0 | 3791 | 0 | 3951 | 0 | 4111 | 0 | 4271 | 0 |
| 3472 | 0 | 3632 | 0 | 3792 | 0 | 3952 | 0 | 4112 | 0 | 4272 | 0 |
| 3481 | 0 | 3641 | 0 | 3801 | 0 | 3961 | 0 | 4121 | 0 | 4281 | 0 |
| 3482 | 0 | 3642 | 0 | 3802 | 0 | 3962 | 0 | 4122 | 0 | 4282 | 0 |
| 3491 | 0 | 3651 | 0 | 3811 | 0 | 3971 | 0 | 4131 | 0 | 4291 | 0 |
| 3492 | 0 | 3652 | 0 | 3812 | 0 | 3972 | 0 | 4132 | 0 | 4292 | 0 |
| 5611 | 0 | 5771 | 0 | 5931 | 0 | 6091 | 0 | 6251 | 0 | 6411 | 0 |
| 5612 | 0 | 5772 | 1 | 5932 | 0 | 6092 | 1 | 6252 | 0 | 6412 | 0 |
| 5621 | 0 | 5781 | 0 | 5941 | 0 | 6101 | 0 | 6261 | 0 | 6421 | 0 |
| 5622 | 0 | 5782 | 0 | 5942 | 0 | 6102 | 0 | 6262 | 0 | 6422 | 0 |
| 5631 | 0 | 5791 | 0 | 5951 | 0 | 6111 | 0 | 6271 | 0 | 6431 | 0 |
| 5632 | 0 | 5792 | 0 | 5952 | 0 | 6112 | 0 | 6272 | 0 | 6432 | 0 |
| 5641 | 0 | 5801 | 0 | 5961 | 0 | 6121 | 0 | 6281 | 0 | 6441 | 0 |
| 5642 | 0 | 5802 | 0 | 5962 | 0 | 6122 | 0 | 6282 | 0 | 6442 | 0 |
| 5651 | 0 | 5811 | 0 | 5971 | 0 | 6131 | 0 | 6291 | 0 | 6451 | 0 |
| 5652 | 0 | 5812 | 0 | 5972 | 0 | 6132 | 0 | 6292 | 0 | 6452 | 0 |
| 7561 | 0 | 7701 | 0 | 7841 | 0 | 7981 | 0 | 8121 | 0 | 8261 | 0 |
| 7562 | 0 | 7702 | 0 | 7842 | 0 | 7982 | 0 | 8122 | 0 | 8262 | 0 |
| 7571 | 0 | 7711 | 0 | 7851 | 0 | 7991 | 0 | 8131 | 0 | 8271 | 0 |
| 7572 | 0 | 7712 | 0 | 7852 | 0 | 7992 | 0 | 8132 | 0 | 8272 | 0 |
| 7581 | 0 | 7721 | 0 | 7861 | 0 | 8001 | 1 | 8141 | 0 | 8281 | 0 |
| 7582 | 0 | 7722 | 0 | 7862 | 0 | 8002 | 0 | 8142 | 0 | 8282 | 0 |
| 7591 | 0 | 7731 | 0 | 7871 | 0 | 8011 | 0 | 8151 | 0 | 8291 | 0 |
| 7592 | 0 | 7732 | 0 | 7872 | 0 | 8012 | 0 | 8152 | 0 | 8292 | 0 |
| 7601 | 0 | 7741 | 0 | 7881 | 0 | 8021 | 0 | 8161 | 0 | 8301 | 0 |
| 7602 | 0 | 7742 | 0 | 7882 | 0 | 8022 | 0 | 8162 | 0 | 8302 | 0 |
| 9401 | 0 | 9541 | 0 | 9681 | 0 | 9821 | 0 | 9961 | 0 | 10101 | 0 |
| 9402 | 0 | 9542 | 0 | 9682 | 0 | 9822 | 0 | 9962 | 0 | 10102 | 0 |
| 9411 | 0 | 9551 | 0 | 9691 | 0 | 9831 | 0 | 9971 | 0 | 10111 | 0 |
| 9412 | 0 | 9552 | 0 | 9692 | 0 | 9832 | 0 | 9972 | 0 | 10112 | 0 |
| 9421 | 0 | 9561 | 0 | 9701 | 0 | 9841 | 0 | 9981 | 0 | 10121 | 0 |
| 9422 | 0 | 9562 | 0 | 9702 | 0 | 9842 | 0 | 9982 | 0 | 10122 | 0 |
| 9431 | 0 | 9571 | 0 | 9711 | 0 | 9851 | 0 | 10001 | 0 | | |
| 9432 | 0 | 9572 | 0 | 9712 | 0 | 9852 | 0 | 10002 | 0 | | |
| 9441 | 0 | 9581 | 0 | | | 9861 | 0 | 10021 | 0 | | |
| 9442 | 0 | 9582 | 0 | | | 9862 | 1 | 10022 | 0 | | |

APD = Autolysis Precludes Diagnosis

Mammary Gland Adenocarcinoma - Female

2 Year Stop Dose

Count = Number per Animal

| Vehicle Control | | BPA 2.5 | | BPA 25 | | BPA 250 | | BPA 2500 | | BPA 25000 | |
|-----------------|-------|---------|-------|--------|-------|---------|-------|----------|-------|-----------|-------|
| CID | Count | CID | Count | CID | Count | CID | Count | CID | Count | CID | Count |
| 1291 | 0 | 1451 | 1 | 1611 | 0 | 1771 | ADP | 1931 | 1 | 2091 | 0 |
| 1292 | 0 | 1452 | 0 | 1612 | 0 | 1772 | 0 | 1932 | 0 | 2092 | 0 |
| 1301 | 0 | 1461 | 0 | 1621 | 0 | 1781 | 0 | 1941 | 1 | 2101 | 0 |
| 1302 | 0 | 1462 | 1 | 1622 | 0 | 1782 | 0 | 1942 | 0 | 2102 | 0 |
| 1311 | 0 | 1471 | 0 | 1631 | 0 | 1791 | 0 | 1951 | 0 | 2111 | 2 |
| 1312 | 0 | 1472 | 0 | 1632 | 0 | 1792 | 0 | 1952 | 0 | 2112 | 0 |
| 1321 | 0 | 1481 | 1 | 1641 | 0 | 1801 | 0 | 1961 | 0 | 2121 | 0 |
| 1322 | 0 | 1482 | 0 | 1642 | 0 | 1802 | 0 | 1962 | 0 | 2122 | 0 |
| 1331 | 0 | 1491 | 0 | 1651 | 0 | 1811 | 0 | 1971 | 0 | 2131 | 0 |
| 1332 | 1 | 1492 | 1 | 1652 | 0 | 1812 | 0 | 1972 | 0 | 2132 | 0 |
| 3451 | 0 | 3611 | 0 | 3771 | 0 | 3931 | 0 | 4091 | 0 | 4251 | 0 |
| 3452 | 0 | 3612 | 1 | 3772 | 0 | 3932 | 0 | 4092 | 0 | 4252 | 0 |
| 3461 | 0 | 3621 | 0 | 3781 | 0 | 3941 | 0 | 4101 | 0 | 4261 | 0 |
| 3462 | 0 | 3622 | 0 | 3782 | 0 | 3942 | 0 | 4102 | 0 | 4262 | 0 |
| 3471 | 0 | 3631 | 0 | 3791 | 1 | 3951 | 0 | 4111 | 1 | 4271 | 2 |
| 3472 | 0 | 3632 | 0 | 3792 | 0 | 3952 | 0 | 4112 | 1 | 4272 | 0 |
| 3481 | 0 | 3641 | 0 | 3801 | 0 | 3961 | 0 | 4121 | 1 | 4281 | 0 |
| 3482 | 0 | 3642 | 1 | 3802 | 0 | 3962 | 0 | 4122 | 0 | 4282 | 1 |
| 3491 | 0 | 3651 | 0 | 3811 | 0 | 3971 | 0 | 4131 | 0 | 4291 | 0 |
| 3492 | 0 | 3652 | 1 | 3812 | 0 | 3972 | 0 | 4132 | 0 | 4292 | 0 |
| 5611 | 0 | 5771 | 0 | 5931 | 0 | 6091 | 0 | 6251 | 0 | 6411 | 0 |
| 5612 | 0 | 5772 | 0 | 5932 | 0 | 6092 | 0 | 6252 | 0 | 6412 | 0 |
| 5621 | 0 | 5781 | 0 | 5941 | 0 | 6101 | 0 | 6261 | 0 | 6421 | 0 |
| 5622 | 1 | 5782 | 0 | 5942 | 0 | 6102 | 0 | 6262 | 0 | 6422 | 1 |
| 5631 | 0 | 5791 | 0 | 5951 | 1 | 6111 | 2 | 6271 | 0 | 6431 | 0 |
| 5632 | 0 | 5792 | 0 | 5952 | 0 | 6112 | 0 | 6272 | 0 | 6432 | 0 |
| 5641 | 0 | 5801 | 0 | 5961 | 0 | 6121 | 0 | 6281 | 1 | 6441 | 0 |
| 5642 | 0 | 5802 | 0 | 5962 | 0 | 6122 | 0 | 6282 | 0 | 6442 | 0 |
| 5651 | 0 | 5811 | 1 | 5971 | 0 | 6131 | 0 | 6291 | 0 | 6451 | 0 |
| 5652 | 0 | 5812 | 0 | 5972 | 0 | 6132 | 0 | 6292 | 0 | 6452 | 0 |
| 7561 | 0 | 7701 | 1 | 7841 | 0 | 7981 | 1 | 8121 | 1 | 8261 | 0 |
| 7562 | 0 | 7702 | 0 | 7842 | 0 | 7982 | 0 | 8122 | 0 | 8262 | 0 |
| 7571 | 0 | 7711 | 0 | 7851 | 0 | 7991 | 0 | 8131 | 0 | 8271 | 0 |
| 7572 | 0 | 7712 | 0 | 7852 | 0 | 7992 | 0 | 8132 | 0 | 8272 | 0 |
| 7581 | 0 | 7721 | 0 | 7861 | 0 | 8001 | 2 | 8141 | 0 | 8281 | 0 |
| 7582 | 0 | 7722 | 0 | 7862 | 3 | 8002 | 0 | 8142 | 0 | 8282 | 0 |
| 7591 | 0 | 7731 | 0 | 7871 | 0 | 8011 | 0 | 8151 | 2 | 8291 | 0 |
| 7592 | 0 | 7732 | 3 | 7872 | 0 | 8012 | 0 | 8152 | 0 | 8292 | 0 |
| 7601 | 0 | 7741 | 0 | 7881 | 1 | 8021 | 0 | 8161 | 0 | 8301 | 0 |
| 7602 | 0 | 7742 | 0 | 7882 | 0 | 8022 | 1 | 8162 | 0 | 8302 | 1 |
| 9401 | 0 | 9541 | 0 | 9681 | 0 | 9821 | 0 | 9961 | 0 | 10101 | 0 |
| 9402 | 0 | 9542 | 0 | 9682 | 0 | 9822 | 1 | 9962 | 0 | 10102 | 0 |
| 9411 | 0 | 9551 | 0 | 9691 | 0 | 9831 | 0 | 9971 | 0 | 10111 | 0 |
| 9412 | 0 | 9552 | 0 | 9692 | 0 | 9832 | 0 | 9972 | 0 | 10112 | 0 |
| 9421 | 0 | 9561 | 0 | 9701 | 0 | 9841 | 0 | 9981 | 1 | 10121 | 0 |
| 9422 | 0 | 9562 | 0 | 9702 | 0 | 9842 | 1 | 9982 | 0 | 10122 | 0 |
| 9431 | 0 | 9571 | 1 | 9711 | 0 | 9851 | 0 | 10001 | 0 | | |
| 9432 | 2 | 9572 | 0 | 9712 | 1 | 9852 | 1 | 10002 | 0 | | |
| 9441 | 0 | 9581 | 0 | | | 9861 | 0 | 10021 | 0 | | |
| 9442 | 0 | 9582 | 0 | | | 9862 | 0 | 10022 | 0 | | |

APD = Autolysis Precludes Diagnosis